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ABSTRACT

This report provides a description and evaluation of a project conducted at Parkersburg Community College to provide workers in local industry with postsecondary educational opportunities in the work place. After chapter I introduces the philosophical base of the project, chapter II outlines its intended outcomes, which included: (1) the establishment of learning facilities and materials in each major industrial plant in the area, allowing workers to take courses at their own pace and coordinating course offerings to fit the needs of plant management; (2) short-term objectives, including the improvement of workers' basic skills and potential for furthering their education; and (3) long-term objectives, including an increase in the number of workers willing to engage in formal study and an increase in the relevance of courses to workers' job experiences. This chapter also provides a description of the extent to which these goals had been achieved after the project's first semester of implementation. Chapter III outlines the methods and results of project evaluations by students, instructors, plant personnel, and outside evaluators, and chapter IV presents an overview of the project's financial status. Chapters V and VI detail plans and the budget for the following year. Chapter VII discusses the project's impact on the basis of reports, data and narratives. Finally, chapter VIII addresses problems encountered during the operation of the project. (HB)

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ED219105

MID-YEAR REPORT

Fund for the Improvement of Postsecondary Education

(FIPSE)

Project

(FY '76)

Prepared by

Raul Reyes
Project Director

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
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PARKERSBURG COMMUNITY COLLEGE

January 1977

JC 820 360

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PREFACE

This is a mid-year report on a project funded by the Fund for Improvement of Postsecondary Education (FIPSE) in collaboration with Parkersburg Community College. The project has been one of the most rewarding areas of experimentation in which this institution has engaged. It is for this reason and in this spirit that this report has been prepared. Though it is only an interim or mid-point analysis, the results of the project have been coming so quickly and they have been so germane to the basic assumptions originally involved, that it was decided to make of this report a major point of evaluation and assessment.

Raul Reyes
Project Director

January, 1977

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INTRODUCTION

Section One
Philosophical Base of Project

There is an important philosophical base by which this project operates and by which it was conceived as a project in the first place. This base is simply stated—postsecondary education must be relevant to people's problems and their efforts to function in society. More particularly, postsecondary education must help to make of its recipients effective producers and workers within their society. This is not to say that postsecondary must do only that, but it must have this as one of its supremely important aims by which it functions.

There is no doubt whatsoever that a principle such as described above would be challenged by many in the business of education beyond the high school level. At the meeting of FIPSE project directors in Zion, Illinois, such objection was made abundantly clear.

The objection seems to center about the question which asks, just what is the aim and purpose of postsecondary education anyway? What are the aims, what are the objectives of this segment of our educational effort? With one group, the answer is a subjective one, based on traditional answers which in one form or another amount to the same thing—viz., it is the aim of post-secondary to educate the public so they may become more effective members of a democratic society.

With yet another group, among which the architects of the present project count themselves, the answer is different—viz., to serve the needs of the community and through that, the needs of society and this country.

With the first group, the answer assumes a prescriptive attitude—or "we know what makes an effective member of society and we will educate you to become so." The second group, assumes that yet another question has to be asked—viz., "what do you feel you need to become an effective member of society."

With the first group, there is faithfulness to a predetermined set of values and principles which they feel have been proven. To educate a society at the postsecondary level is to introduce this society to these values and principles.

With the second group, there is a faithfulness to the individual's ability to analyze his needs and to voice them with effectiveness and even wisdom.

Neither group, it is fair to say, is willing to discount the value of its opposite. Indeed, both groups agree on the value of both approaches. So the question becomes a problem from quite another direction—mainly, how much influence will each view be allowed when it comes to 1) the courses to be taught, 2) the guiding principles by which the content of each course is organized and developed, and 3) the method by which it is taught.

The group which believes in the subjective and prescriptive approach (usually the more traditional university view in the more classical mold), would give a different answer to each of the three points above than would the more pragmatic group which believes in serving society's needs.

The courses taught are the courses which historically have been taught —the courses that experience and tradition have shown any well educated

person should take—the first group would say. Furthermore, this group would say for the second point that the content and development of each course should follow a rather obvious pattern—viz., teach the theoretical principles of the subject involved and make clear the values, theoretical as well as philosophical, of the larger discipline in which it falls.

Thirdly, in the case of method, the same group would say, follow that pattern, be it lecture or discussion (both is considered even better), that will exercise the mind and will guarantee the student's mastery through the understanding of the theoretical principles involved.

In fact, one should note quite emphatically at this point that unless the pattern indicated by the answers above can be followed, it is difficult to make of any area a potential "course" for credit at any postsecondary institution of the classical mold. Marrice Grosser in The Painter's Eye was one of the first to point this out to the academic community when he wrote that not until the school of Modern Art came into being did a university actually begin teaching art and giving a degree in it—mainly, because in the entire history of art as a craft, art as a skill, no other art movement had been able to satisfy the necessity the universities have for constructing course content upon "theoretical principles" which can be listed, step by step, and by which, once put together, the subject can be studied and mastered. Up to this time, according to Grosser, artists had been taught by Guilds and by the masters themselves, and they learned—not by theory—but by "doing", by "imitation which led to intuitive rather than theoretical understanding".

Thus, to take what may seem a facetious example (but which really is

not), if one wished to offer a course in the skill of "walking", the act or skill of walking would first have to be reduced to a set of theoretical and sequential series of action, each of which would have to be explained in terms of the physical laws of movement and, each of which would have to be explained particularly in the larger context of Locomotion of which it is a sub-part. The example is a deliberate one in that at least one thinker and writer of some renown was known to have said of walking—that if anyone were to try to walk by following such a series of detailed instruction, he would probably fall flat on his face. Yet another well known author, in this case a philosopher, was known to have described walking gloomily as man's simple attempt "to keep from falling". Imagine, the content—both philosophical and scientific—that such a course on walking could generate with such raw material on which to base it.

There is bias perhaps in this example, but it is intentional and serves to describe, for this report, what has already been said by others where university traditions in education are concerned—mainly, that they are in need of reexamination and, more important, regeneration.

The point here is most serious, however. For with the group that is involved in this project, the group that seeks to educate society based on its needs, there is no course, including walking, that they would not consider. The answer with this project when it comes to the same three questions and the areas of concern, therefore, are different—vastly different. In answer to the first area—what courses should be taught—the answer would be—those that society wants taught, as much as possible. Of course, in the case of this project the term "society" would have to be

replaced with the term "industrial personnel in the surrounding plants". In answer to the second—how should it be structured or organized—the answer would be—so that it has immediate, if possible (indirect at least, if not), application and influence upon the effectiveness of the student both at his work in the plant and as an individual who happens to be working in a plant. In case of the third area—what method of teaching—the answer would be—one-to-one, person-to-person—where he can progress at his own rate and in his own way of learning.

Here then in a nutshell is the project's philosophical base. But this is more than a project to take education to those who have been deprived of it in the past; even though this is, indeed, a major contribution this project has made thus far and will surely continue to make.

But implications are more far-reaching than this. What about the whole of education and its committment to theory learning which this project challenges? Take for example, a most commonplace course—English Composition. Why is it that in plant after plant, from top management on down to the most routine of line worker, the answer to the question "what do you need" time after time, begets the answer "I need to learn to write."

Have these people, many college graduates themselves, forgotten what they have learned? Or were they ever taught to write? Perhaps they were taught the "theory" of writing. Could this be the problem?

As teachers, many professional educators can recall the effort that has to be made in classroom after classroom, subject after subject, to

make the subject matter come alive by the well known appeal that inevitably starts with "One of these days, you will be faced with the problem of—etc., etc." And so, off the class and instructor will go, both holding hard to a lesson that has already begun to defeat itself with the admission that it is not timely, it is not relevant, it is not applicable, but is based, instead, on the idea that "one of this days", it might be!

This project, in turn, has taken the request "we need to learn to write" and enrolled the student in the traditional English Composition course. But there the similarity ended—because the course was restructured and developed based on the student's need at his work for the writing skill he requested. Thus, a theme on Analysis with introduction and conclusion in the classroom became a theme on Analysis of a production control manager's problems with excessive product rejection due to "Engineering Error". There is no "One of these days you will—" approach in any form in the approach. The hard, sometimes grim reality of the actual existence of the subject becomes a vehicle for almost unbelievable energy, enthusiasm, and quality of work.

Yet what do these findings on the part of this project have to say, about the way the same course is being taught back on campus and on thousands of other campuses. This has given the project personnel much food for thought (see Impacts of the Project below).

Multiply this one example by the many other course work this project has designed and taught plant personnel, and one will begin to have an idea of why the personnel of this project feel so excited and inspired by the

work being done. Then—just to round the picture even fuller in terms of the project's value to this school—consider what all this would do and has done to the instructional personnel who themselves have had to adapt. to change, and at times even to abandon past procedures—in order to make all the instructional success this project has enjoyed, a reality. What of the impact upon them and their development an educators?

In a following section, entitled Impacts of the Project, there are reactions and assessments from the instructors themselves, which are important to include in a report such as this. For the project has, indeed, made an impact on many areas—with plant personnel, including the highest level of management; with plant workers, many of who now question why they cannot have course work such as this in all their other college work that they would like to pursue; and within the community at large, itself.

Section Two

Current Status and Expected Outcomes of Project

Currently, the project has finished its first semester's program. The strategy followed was based on making initial announcements of the project through brochure and leaflet material, describing the basic thrust and purpose of the project, first. Then following this with a series of counseling sessions at which time all interested plant personnel were given a chance to ask questions and gain further information. And, finally, setting a starting date for enrollment and for classes to begin.

All the planning and the step by step detail which was needed to implement this procedure and which resulted in the launching of the project—as well as the christening of the program as "Industrial Campus" or "Ind-Camp" for short—is described in Newsletters #1 and #2 found in the Appendix. Anyone interested in the problems of starting such a project as this and in the specific step by step detail should read these letters. The problems were interesting and varied, but more particularly they were "sensitive". For example, the suspicion on the part of plant personnel regarding management's motives in this kind of activity. Or, for that matter, the heavy and quite cautious way academic and industrial managers meet for the first time. Some of these problems and more are described in the section entitled Problems Encountered in Project which follows.

Nevertheless, the important points were accomplished—viz., the activities of counseling, enrollment, and actual instruction were launched, and they were launched on schedule. More specifically, however, the current status of the project can be described in terms of the actual grant. For example, on page 5 of the grant proposal, it was made clear what the intended

outcomes of the project were supposed to be, if funded. In order to establish the intended outcomes, a nine-point project was developed. Following is a reproduction of this section of the grant, including the nine-point project to implement outcomes.

> The following is an excerpt from p. 5, 6, and 7 of the original grant proposal entitled Program to provide industry workers with postsecondary educational opportunities and funded under Grant Number G007603023

Statement of Intended Outcomes

Urban plant workers should be able to use every available free hour from their work for instruction, if they wish to use time this way. Furthermore, they need to be able to get such instruction without actually having to attend college with its regular time frame and traditional classroom schedules.

To do this Education must be taken to them. It is the aim of this proposal to do just that—to furnish them with facilities and materials for learning opportunities that will be located directly at the scene of their employment.

In order to effect the outcome described above, the college wishes to implement the following nine-point project:

1) Establish a laboratory for instruction in each major industrial plant in the area willing to cooperate,

2) Staff this laboratory with instructors and materials and equipment equal to same at main campus,

3) Allow plant workers to drop in for instruction at any time as allowed and as arranged by their companies,

4) Allow study in blocks of time as needed and as allowed by each plant,

5) Allow the plant worker to progress at his own rate,

6) Modify the materials for each individual worker so that he may skip items in which he can show competency and engage those he needs to master,

7) Make his work a matter of record, and grant official credit for what he accomplishes, whenever such credit applies,

8) Coordinate work attempted in laboratory with work being done at the plant whenever possible. Thus, shop mathematics as a course can be articulated with the use of shop math in the worker's skill area, etc.,

9) Coordinate additional course offerings suggested by the plant and design other instruction to fit needs of plant management. Thus, if a course in writing of memorandums is needed for supervisory staff, such a course will be designed with the company's special needs as base.

Specifically, the college hopes to accomplish an improvement not only in basic academic skills but also in professional and on-the-job skills. The following short-term objectives, therefore, will be expected:

1) A significant improvement in the basic language skills such as reading and writing, of the plant workers involved,

2) A significant improvement in the basic computational skills of the plant workers involved,

3) A significant improvement in their potential for furthering their formal education.

The college also expects to accomplish the following long-term objectives:

1) A significant increase in plant workers willing to engage in formal study designed for their professional growth and personal self-improvement,

2) A significant difference in the kind of programs and kind of work which the student will experience so that his education becomes more significant to his job,

3) A significant change in instructional methods and educational philosophy by which courses are taught and designed so that the education of the student becomes more of a "work" or "job" related experience,

4) As a result of the items above, a significant increase in the programs, both occupational and/or college parallel at this college.

The objectives above, both short and long-term, are predicated on what this college thinks is a vigorous but badly needed departure from tradition. This is not a simple extension of the college's usual programs. The college has accomplished this kind of expansion very well already in its recently developed centers which are serving the outer reaches of the eight county area. What the college is trying to do with this project is to effect a change in its traditional system. And what it hopes to accomplish in doing so, is a different solution for meeting old problems.

[end of excerpt]

At this mid-point period, the status of the project can best be described by reference to the objectives and aims described above.

For example, the project has successfully completed the first eight (8) points of the nine-point project to date as the following point by point discussion will show. The ninth or final point, in turn, is the basis for all the planning being done for the second semester's work which is supposed to follow immediately (February 1, 1977 will be the first day of instruction).

Point by point, this status of the Project at present, therefore, is as follows:

Point #1 Objective: Location of Laboratory Established

Brick office and conference room used by Walker Parkersburg

was assigned as site of laboratory. Chairs, tables, filing cabinets, and shelves were made available. See story on Little Red School House reproduced in Appendix, (as the laboratory became known).

Point #2 Objective: Staffing of Laboratory

Two full-time instructors and one on-site Director/Counselor were hired and materials were given them. In addition, the instructors were given specialized instruction and equipment equal to that used at main campus. See biographies and credentials of all FIPSE personnel, including instructors, prepared especially for this report in the Appendix. Also see evaluation and discussion of materials used in project in section entitled Evaluation where evaluation occurs in part on materials.

Point #3 and #4 Objectives: Plant Workers Schedules

As the following weekly schedule distribution of instructional time will show, plant workers were allowed to pick their time. Choices by workers clustered mostly in the latter part of the day so that instructors continued until late. Most students chose to split their weekly instructional time into two visits rather than take one long session. This worked best for plant operation as well.

Point #5 Objective: Progress at Worker's Own Rate

Students absorbed material at different rates of learning as it

was almost certain they would. But not all of the difference in rate came from ability to absorb material more rapidly. Some of it came from students' desire to do more work. In certain cases, additional time, therefore, was actually spent. This posed a problem in efficient use of instructors' time in that students desiring additional work made necessary instructors' additional guidance. Much of this, however, was solved by the use of the materials involved. Since much of the writing instruction was in slide/tape presentation format, arrangements were made where this kind of independent study could be done as "extra" effort by those wishing to progress faster. All in all, it spoke well of the enthusiasm of the students for the instruction.

Following is a record of the number of hours taken by each student to complete a given course with a column to identify the average time considered necessary for the course (Figures i,ii).

Point #6 Objective: Modify Material to Ship Unnecessary Instruction

The material used in the project had been developed for use in an Individualized Learning Center on which the plant laboratory in this project was modeled. The material has sequential objectives and tasks with opportunity and procedures built-in for students to skip any part with which they are familiar. In the case of Report Writing, for example, it was noted that many mid-management administrators could skip much of the material dealing with basic paragraph structure and sentence development, but

FIGURE 1

CLASS HOURS REQUIRED BY STUDENT, HOURS CREDIT, AND STANDARDS FOR HOURS REQUIRED NORMALLY TO COMPLETE COURSE
Walker/Parkersburg

* a - CEU b - college credit

Course Name	Student Name	Hours to Complete	Credit Hours*	Standard Hours
Shop Math I	M. Christopher	27½	3a	30
Shop Math I	R. Corbitt	25	3a	30
Shop Math I	C. Domigan	27½	3a	30
Problem Solving	A. Hadfield	21.9	2a	20
Problem Solving	A. McClain	27¼	2a	20
Problem Solving	M. Plassmeyer	22½	2a	20
Problem Solving	F. Washington	21½	2a	20
Report Writing	D. Miller	30	2a	20
Report Writing	J. Wareheim	27½	2a	20
Technical Writing	W. Walker	16½	2a	20
Business Communication	D. Cumpston	26¼	3a	30
Business Communication	J. Wright	30	3a	30
Composition	E. Diehl	30	3a	30
Composition	R. Twyman	33¼	3a	30
Special Problems in Writing	G. Radabaugh	30.75	3a	30
Special Problems in Language Study	L. Mays	22	2a	20
Special Problems	J. Ankrome	30½	3a	30
Report Writing and Design	D. Hutchinson	25½	2b	30
Technical Writing	D. Coull	35¼	3b	45
Technical Writing	M. Parsons	36	3b	45
Business Communication	W. Young	28½	2b	30
Composition	M. Beckert	28½	3b	45
Composition	C. Halstead	36	3b	45
Composition	L. Phillips	33	3b	45
Composition	C. Sandy	26½	3b	45
Composition	T. Sodders	30	3b	45
Shop Math I	R. Hendricks	30	3b	45
Shop Math I	L. Stewart	24	3b	45

FIGURE ii

CLASS HOURS REQUIRED BY STUDENT, HOURS CREDIT, AND STANDARDS FOR HOURS NORMALLY REQUIRED TO COMPLETE COURSE
American Cyanamid

* a = CEU b = college credit

Course Name	Student Name	Hours to Complete	Credit Hours*	Standard Hours
Special Problems in Writing	Z. Morgan	24	3a	30
Special Problems in Writing	J. Swan	26	3a	30
Special Problems in Writing	C. Buttrey	28	3a	30
Special Problems in Writing	J. Fries	24	3a	30
Special Problems in Writing	C. Buckley	24	3a	30
Special Problems in Writing	B. Bailey	20	3a	30
Special Problems in Writing	J. Borsma	24	3a	30
Special Problems in Writing	B. Brunyate	22	3a	30
Special Problems in Writing	R. Macklem	24	3a	30
Special Problems in Writing	M. Willis	22	3a	30
Special Problems in Writing	B. Short	20	3a	30
Special Problems in Writing	C. Kurner	24	3a	30

needed to concentrate, instead, on overall organization and controlled format for report writing.

Point #7 Objective: Record Work and Credit

The following courses were taken for credit (see Figure 1 in this section, and Figure 4 in Section Three). In certain cases, regular college credit was given and in others Continuing Education Units (C.E.U.'s) were granted. Many times the two kinds of credit were given in the same subject matter. As one can see, the enrollment shows regular call numbers and catalog identification. Grades were also granted as for regular course work (see Grade Distribution in Evaluation section).

Point #8 Objective: Coordinate Academic Work With Plant and On-the-Job Needs

Here, perhaps, has become the most important and significant aspect of this entire project. It was obvious to the planners of the project from the beginning that this area was a fertile one for experimentation and discovery. But the reality of the situation once the project became active exceeded, if anything, expectations. There is much of importance to be learned from the experience this grant has furnished to both the instructors and the education development officer of this institution. The experience challenges very definitely the effectiveness of learning when such learning is structured so heavily on what is only "theoretical" application to be experienced by the student in later life. The section previous to this, describing the philosophical base of this project has already made the point clear. There is no need to repeat it here.

However, there is a need to emphasize what the students themselves had to say, how the approach affected their attitudes and skills, and even how the instructors were affected by this same point. For this reason, the section entitled Impacts Achieved by Project includes several anecdotal case histories, as well as direct reaction from the instructors themselves.

Point #9 Objective: Coordinate Additional Course Offerings Suggested by the Plants

At the beginning of the project it became quickly apparent that what the plant workers and administrators decided they needed was, in most cases, what they thought we wanted them to say. It was difficult, and at first impossible, to break the habit of tradition on their part where academic work was concerned. For example, they knew that colleges offer course work in periodically revised catalogs and schedule lists. So the first thing they asked for was a catalog. Yet the question posed to them was "what kind of education do you want or need."

What we expected to hear was a specific answer—to wit "I have this kind of report I have to write every two weeks and I have been having trouble with it in this or that way." Instead, the answer received was more like: "What do you have." When given a list of courses, the new problem was in terminology. It was quickly discovered that when a plant worker decided upon Technical Writing, say, for his work, that he might mean anything from Spelling to statistical graphs and charts. Or else if he picked

Report Writing, he might mean only letters and memoranda. So it was necessary to be cautious.

The surprise came, however, in how difficult it was to impress upon the industrial personnel the importance of the objectives of point eight above—the project's aim to coordinate regular work to on-the-job demands. Instead, the project director was frequently asked for syllabi and textbooks. In effect, they were ready to begin a "traditional course of study" in the "traditional way."

It is only now after a full semester and slow but steady indoctrination and frequent discussions and meetings, that the impact of the project has begun to be understood. The result has been an enthusiasm that has been more than heartening, almost inspirational. One of the major examples of this has been a course in Blueprint Reading. Though the plant had not thought of such a service, it became apparent by simple student demand that many on-the-job problems revolved about blueprints and interpretation of same.

Investigation on the other hand showed why. The plant has a unique use of a procedure with blueprints. As a result a Blueprint Reading course—a course already listed in the catalog but not previously useful—has been developed which approaches the specific problems of the plant in question even as it follows the normal syllabi and requirements. A second case in point, is in Report Writing. After a full semester of report writing techniques,

the plant managers involved have consulted with instructors and have developed a specialized approach to their report problems in their plant. The result is a course that varies from the campus counterpart in that it teaches report writing in topical form with a Telegraphic Style and abbreviated sentence structure, quite typical in fact of industrial communications. Yet it took an entire semester working with polished, full sentences and well developed paragraphs for the agreement and dialogue to take place. It is a perfectly reasonable request, it will not violate any precepts of writing or standards of writing and, in fact, will make of the course even a slightly more difficult course since brevity is always a more challenging skill than is lengthy development.

Such points as these have led, therefore, to a slow but careful addition of courses to the curriculum already developed the first semester. Below is a list of such courses already added, and more are yet being worked on:

1) Blueprint Reading
2) Speed Reading
3) Quality Control
4) Business Letter Writing
5) English Comp. (1st & 2nd Semester)
6) Math (1st & 2nd Semester)

- end of this section -

Section Three

Current Status of Evaluation Plan

The project from its inception included a list of points upon which evaluation would be based. The list is as follows:

1. Our effectiveness in serving the needs of the students as defined.
   Method of gathering data: We will use questionnaires both to the students as well as to the supervisors and managers. Also, we will request the company to interview the students in this area, periodically throughout the year.

2. Our effectiveness in involving our constituencies in this project—in this case, the companies themselves.
   Method of gathering data: We will keep a file of reports and correspondence making certain as we progress that input evaluation from the company keeps coming. More specifically, we expect to use the company management and supervisory structure very actively in (1) analyzing materials we use for effectiveness and application to need, and (2) determining course work and course objectives for best results.

3. Our effectiveness in establishing and maintaining a relationship between college and corporation involved.
   Method of gathering data: We will ask the evaluation team to interview the corporation officials for their estimate of the success or lack of success in the relationships as established with the program. Also, we will ask for feedback from the company officials involving their estimate of the relationship as we progress throughout the year.

4. Our effectiveness in devising incentives for workers to participate in the program.
   Method of gathering data: Again, we will rely on actual figures, especially as they may grow as the year goes on. Registration into the program can occur at any time; thus, a good index for this area will be the climbing rate of participation or its lack of it.

5. Our effectiveness in providing educational information, counseling, personal and academic advising and referral.
   Method of gathering data: The program arranges for an on-site counseling and advising component, with a counselor available with which not only to accomplish this objective but to gather data in terms of numbers of people counseled, type and kind of counseling and advising needed, and the like.

6. Our effectiveness in assessing the impact of the program on ourselves as an institution, especially in training our faculty staff to work with the type of student represented by industry in this project.

   Method of gathering data: The task force involved in administering and running this program (see proposal) will assess this area and will produce a mid-year and a final report on this question. The report will include (1) what training the teaching staff and the paraprofessionals involved received, (2) a report from each individual so trained, and (3) an assessment of the institution's reaction and adjustment to the problems as they may arise.

7. Our effectiveness in involving the supervisory personnel in the teaching of workers.

The college will also address itself to the problem of balancing the evaluation team with the proper representation of the areas involved. Thus, the team will have the following personnel:

A representative from industry, especially the management sector.

Description of background: This representative should be familiar with both the needs of industry, particularly the plant worker on the job, and the resources and capacities of postsecondary education as represented by our college. Many companies have the precise individual described here as educational officer or as a supervisor in charge of personnel training. There is ample opportunity in this area to obtain the services of such an individual.

A representative from the academic community.

Description of background: The project needs evaluation from an academic viewpoint. This representative should furnish such a view, but he should also be cognizant of and familiar with the problems of industry and of the plant worker as a student. Furthermore, he should be familiar with or responsible for information about individualized instruction such as will be pursued in this project.

A representative from labor, especially the line of production worker segment.

Description of background: The project also needs evaluation from the viewpoint of the student, the plant worker, for whom this project has been devised. Such a representative should be acquainted with college instruction in the traditional vein on campus, and with the instruction as it was pursued on the plant premises. Thus, he should ideally come from the project itself in that he should have been involved in study within the program. There is ample opportunity to pick such a person from the many who are familiar with the college.

The list above was formulated as the bases for evaluation. But since the project has begun, more experience and familiarity has enabled the project director to expand and to add to the evaluation. Considering the project, therefore, from this mid-year viewpoint, the following more detailed bases for evaluation have suggested themselves.

Major Elements to be Evaluated

First, it seems necessary to extrapolate from the project's workings and structure, what could be called the "major elements" or "underpinnings" which underlie, and give the project its unique identity. Following are these:

1. Its Basis of Operation
2. Its Method of Operation
3. Its Specialized Materials
4. Its Special Adaptation of course work to job-related needs.

As described in the original proposal, the laboratory bases of operation (Point #1) was to be substituted for the more traditional "classroom: and "class" method of operation. The laboratory technique has already been developed, tested, and refined on-campus during the previous four years. So in this respect the unique basis of operation is already available. Of course, a further uniqueness of operation was added by the decision to take the laboratory directly onto the plant premises. This is a major difference and a major element of identity where this project is concerned. Thus, evaluation must involve this major point.

As for the method of operation (Point #2) above, the same holds true.

Open-ended entry and exit from the laboratory, work done by the student at his own pace, one-on-one instruction with materials adapted to the student's rate and method of learning—these are the things which are unique in the operation of the laboratory itself. Thus, evaluation again must consider this.

The third item, specialized materials, derives directly from the second. The specialized individualized instruction being pursued, demands that most traditional material be adapted. Again an advantage for the project lay in the availability of specialized materials, many of which had been developed under the same conditions on campus already. But again it was obvious that further adaptation was necessary. Evaluation should consider this element as well.

The final item, adaptation of course material to job-related needs, is perhaps the most unique of all. The question is whether such adaptation begets as good or better responses from the student, and secondly whether the resultant learning is as good or better than would take place in the traditional environment. Evaluation must be certain to include this point, therefore. It is the most interesting and inportant of all the points, when one considers that the project is an experiment which challenges certain accepted practices.

Major Sources of Data for Evaluation

The next important question is to determine the sources from which data will be obtained with which to evaluate the important elements of the project listed above. The following were determined to be these sources:

1. Students in the Project
2. Instructors in the Project
3. Plant and Industrial Personnel (who were not students)
   a. Immediate Supervisors of Students Enrolled
   b. Plant Administrational Personnel (Top and/or Mid-Management Level)
4. Outside or Out-of-Project team of Evaluators

Areas to be Covered by Each Source

Students

It was determined students would be asked to evaluate specifically: 1) Materials, 2) Instructors, 3) Instructional Methods, 4) Their personal reactions.

Instructors

The instructors in the project have been asked to evaluate: 1) Materials, 2) The impact of the project on themselves as it pertained to their previous concepts of teaching, of learning, and of course content and student motivation, 3) Administrative Support (both from the Grant as well as college administrators).

Plant and Industrial Personnel

In the case of the immediate supervisor of each student enrolled, it is thought that an evaluation on his part should contain—1) his assessment of student's improvement on-the-job noted, if any, due to the project, 2) his assessment of the work offered the student by the project, 3) his assessment of the "relatedness" of work done to job needs of the student as he, the supervisor, sees it, 4) his assessment of materials and methods

used, if he wishes to give it.

In the case of the management personnel, it is thought that a statement of any feedback as might have come to them from their rank and file subordinates will be useful. It was decided after a meeting at which much of this feedback was given orally, that a summation of it by a major Administrator of the plant—would be best (in the case of Walker Parkersburg, Division of Textron, that is). (See Modification of Plan under Section Five for other plants involved.)

Outside Team of Evaluation

It was decided that the team should be comprised of four (4) members:

1. Dean of Instruction's Office (the Dean or the Assistant Dean of Instruction),
2. Content Specialist (if evaluating English teaching, an English Specialist, etc.),
3. Member of the FIPSE project (for Data Resource and to expedite work only),
4. Plant Representative (one not involved in any way, possibly not located in the Plant in question but familiar with other Industry or other Plant).

In the case of the first two members mentioned above, campus personnel were considered not only sufficient but superior to outsiders. The FIPSE project has been a separate arm of activity in the college, and it is reasonable to claim that the Dean (or Assistant Dean of Instruction) and any traditional classroom faculty member would be objective. As a matter of fact, it is considered ideal to have those engaged in administering and teaching the t· .itional course work on-campus be the arbiters of the effectiveness of a project which takes campus instruction and courses and adapts them to

the unique off-campus learning situation represented by the project. They would be in the best position to determine success if they were allowed to see the student work, to question the instructors, etc., (see privileges of the team in second list below). and furnished all the data they desired.

In the case of the fourth team member, it was felt an objective view could be obtained from an industry or "plant type" reacting to an "academic type" program aimed at his area of activity and knowledge. At this point, it is felt such a representative ought to be picked by the plant involved, to build a better credibility for the progress of the project, as the team report may show it.

The areas to be evaluated by the team will be as follows:

1. Method of Instruction
2. Quality of Learning and Instruction
3. Objectives of course work
4. Success of Adaptation of Regular Course Objectives to Industrial Needs.
5. Effectiveness of Specialized Materials.

Furthermore, the privileges of the team should include the following:

1. To question and/or consult with the students
2. To question and/or consult with the instructors
3. Consult and/or question all FIPSE personnel
4. Accessibility to all material used
5. Study all records of work done by students and instruction time received by each
6. Any other data pertaining to the five areas being evaluated.

Considering that the team would be evaluating five specific but different areas (listed above), it is felt that the make-up of the team should be such that every individual member will have at least one area in which he will be a major contributor because of his knowledge and/or experience. This was achieved it is felt, as the following chart will show.

Team Member Identification	Major Area(s) of Knowledge and/or Experience which he will Evaluate	Marginal Area of Concern
Dean of Instruction's Office	1. Method of Instruction 2. Quality of Instruction 3. Objectives of Course work	4. Adaptation to Industrial need 5. Effectiveness of material
Content Specialist (English, Math, etc.)	1. Method of Instruction 2. Quality of Instruction 3. Objectives of Course work 4. Adaptation to Industrial needs 5. Effectiveness of materials	
Member of the Project	No evaluation allowed	No evaluation allowed
Plant Representative	4. Adaptation of course work to industrial needs.	5. Effectiveness of specialized material.

Evaluation of Adaptation of course work to industrial needs, one of the most important points of the evaluation, will be fulfilled mainly between the efforts of two members of the team, the Content Specialist and the Plant Representative. The Content Specialist can judge how well the traditional classroom objectives have been safeguarded even though adapted

to different uses and needs, and the Plant Representative can evaluate how well the adapted course objectives fulfill industrial needs. It is a question of two members leading to a whole or unit treatment of one area.

Current Status of Plan

The plan for evaluation described above has been developed during this first half year. Yet it has been the basis for data gathering from the beginning. Students have to this date already been given their questionaires and instructional rating sheets. These will be unsigned and for obvious reasons were not given until the student had finished his work and had been awarded a final grade. The results of these for the first semester are included in this report (see Figures 1a and 1b).

Instructors furnishing the portion of the evaluation described above are preparing their reactions and data for the first semester for inclusion with this report. Their work follows in the section immediately below Data to Date. They will, however, continue gathering data during second semester for additional reporting yet to be done.

Plant and Industrial Personnel as source for data gathering has already been tapped. Reactions from the first semester's work have been received from the Administrative area of the plant and follows in the section immediately below also. Reactions in terms of supervisory feedback has taken longer and is still in progress. It is a more difficult area to do with the many persons involved and with the "sensitive" problems of line and staff relationship which must be protected. But it will be available by end-of-year.

Following is the data developed to date, therefore:

Data to Date

Student Evaluation. Students were given the following questionnaires to answer: 1) a questionnaire seeking their reaction to the quality of instruction they received, and 2) a questionnaire seeking their reaction to the instruction, materials, and conditions of learning. Figure 1 and Figure 2 following are those questionnaires reproduced in full. Figure 1a and Figure 2a are the results—Figure 1a representing the results of questionnaire in Figure 1 and Figure 2a of the one in Figure 2.

In addition, Figure 3 which also follows is a record of the number of hours attended by each student in the course work accomplished by him. As a rule of thumb or rough approximation, the average time spent on-campus for course work of the type studied at the plant site is roughly fifteen clock hours for every credit hour of college credit and roughly ten clock hours for every credit hour of Continuing Education Units (C.E.U.'s). Thus, it might have been expected that a student enrolling in English Composition, for example, for the regular three hours of college credit will spend forty-five clock hours of learning time. This is traditional proportions of clock and credit hour comparisons. Experiments on-campus, however, in the Individualized Learning Center have already shown that a significant saving of time can be achieved with individualized instruction, with many students saving up to 15% or more time over those in the traditional classroom. So it was hoped and expected the same would happen on the plant site. Figure 3 shows this to happen. Figure 4, in turn, shows the list of courses taken, in what numbers, and from which plant work area.

FIGURE 1

PARKERSBURG COMMUNITY COLLEGE
Parkersburg, West Virginia
26101

SUBJECT: FIPSE / IND-CAMP EVALUATION

The purpose of this evaluation is to give you an opportunity to help us improve the instruction in the FIPSE project. Please be open and honest in your ratings and comments. To insure confidentiality we ask you not to sign your name. This evaluation will not be read by the instructor until your grade has been given to the Records Office.

INSTRUCTOR EVALUATION FORM

COURSE NAME AND NUMBER _____

DATE COURSE COMPLETED _____ INSTRUCTOR _____

Please write in the blank space provided the number that best describes your judgment of YOUR INSTRUCTOR in regard to the qualities listed below. Rate the instructor on each item giving the highest ratings ONLY for unusually favorable impressions.

UNABLE TO JUDGE	LOWEST			AVERAGE			HIGHEST
X	1	2	3	4	5	6	7

1. _____ Presentation of subject matter

2. _____ Clarity and accuracy of direction

3. _____ Reception to your questions

4. _____ Answering questions clearly

5. _____ Adapting the course to your rate of learning

6. _____ Making you aware of course requirements early in the semester

7. _____ Ability to encourage you in your learning

8. _____ Keeping you informed as to your progress in the course

9. _____ Dealing with any special problems that you may have had affecting the course.

10. _____ Spending sufficient time with you while in the project

11. _____ **Overall** ability to function successfully in an individualized learning **program** like this.

FURTHER COMMENTS:

Please return this form in the attached envelope by the plant's mail system.

PARKERSBURG COMMUNITY COLLEGE
Parkersburg, West Virginia
26101

SUBJECT: FIPSE / IND-CAMP EVALUATION (Con't.)

Please evaluate the course on this form. Do NOT evaluate the instructor.

COURSE EVALUATION FORM

COURSE NAME AND NUMBER _____

DATE COURSE COMPLETED _____

PLEASE CIRCLE THE APPROPRIATE ANSWER IN RESPONSE TO THE FOLLOWING QUESTIONS. PROVIDE COMMENTS WHEREVER YOU LIKE:

1. Were the test questions relevant to the material covered? YES NO NO COMMENT
   Explain:

2. In regard to the materials in this course, do you find that they are generally:

   (A) Readable? YES NO NO COMMENT

   (B) Adequate in covering the subject? YES NO NO COMMENT

   (C) Available when you need them? YES NO NO COMMENT

   Explain:

3. Would you recommend the addition of any other materials to the course?
   YES NO NO COMMENT

   Explain:

4. If you had a chance to take this course again, would you do so?
   YES NO NO COMMENT

   Explain:

5. Is the IND-CAMP environment such that you would like to take other courses here? YES NO NO COMMENT

   Explain:

6. Have you been able to adjust yourself to the noise level?
   YES NO NO COMMENT

   Explain:

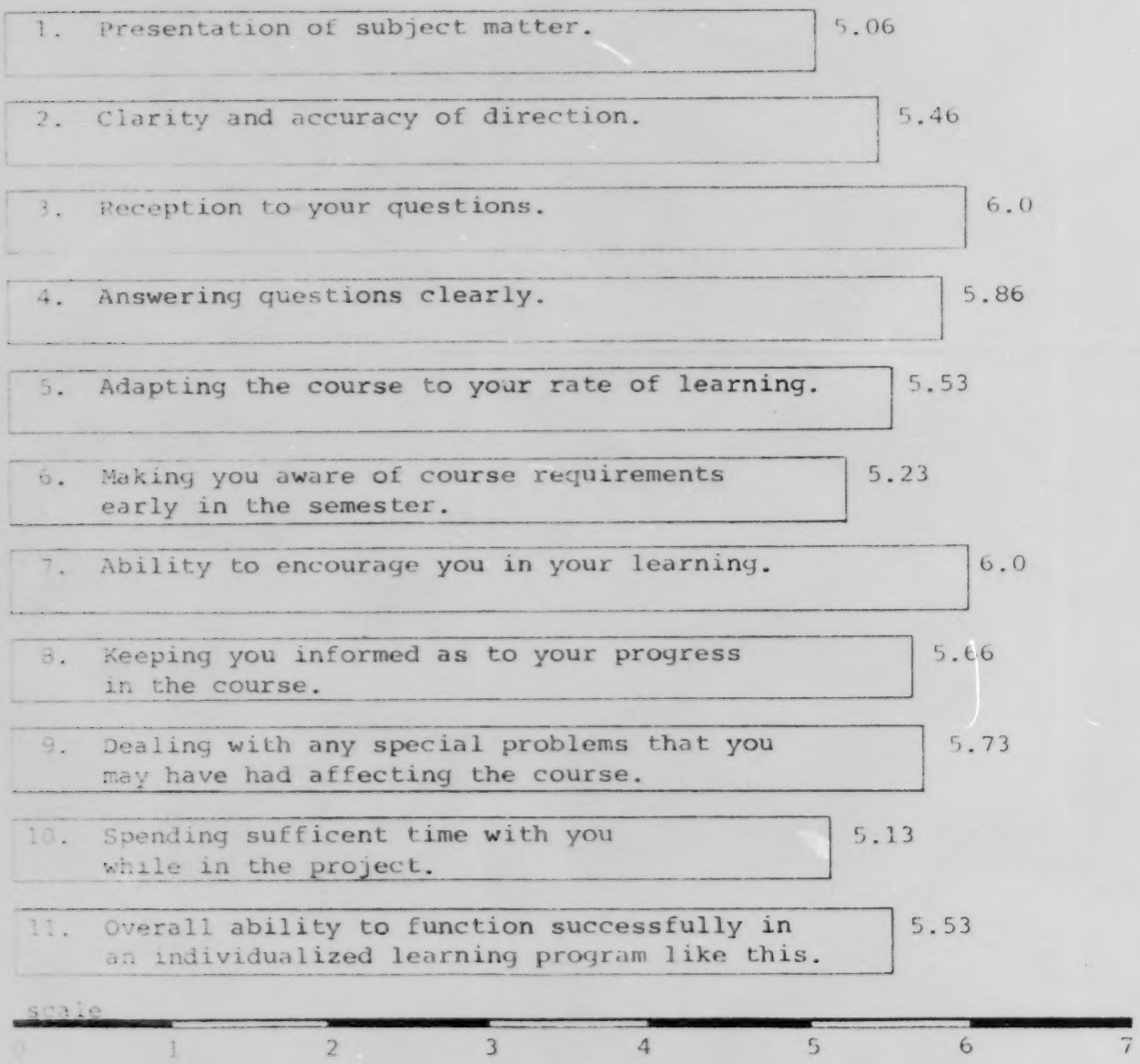
7. Are there any courses you would like to see added to the curriculum?
   YES NO NO COMMENT

   If yes, which ones?

FURTHER COMMENTS: (Please use reverse side of this page)
Please return this form in the attached envelope by the plant's mail system.

FIGURE 1a

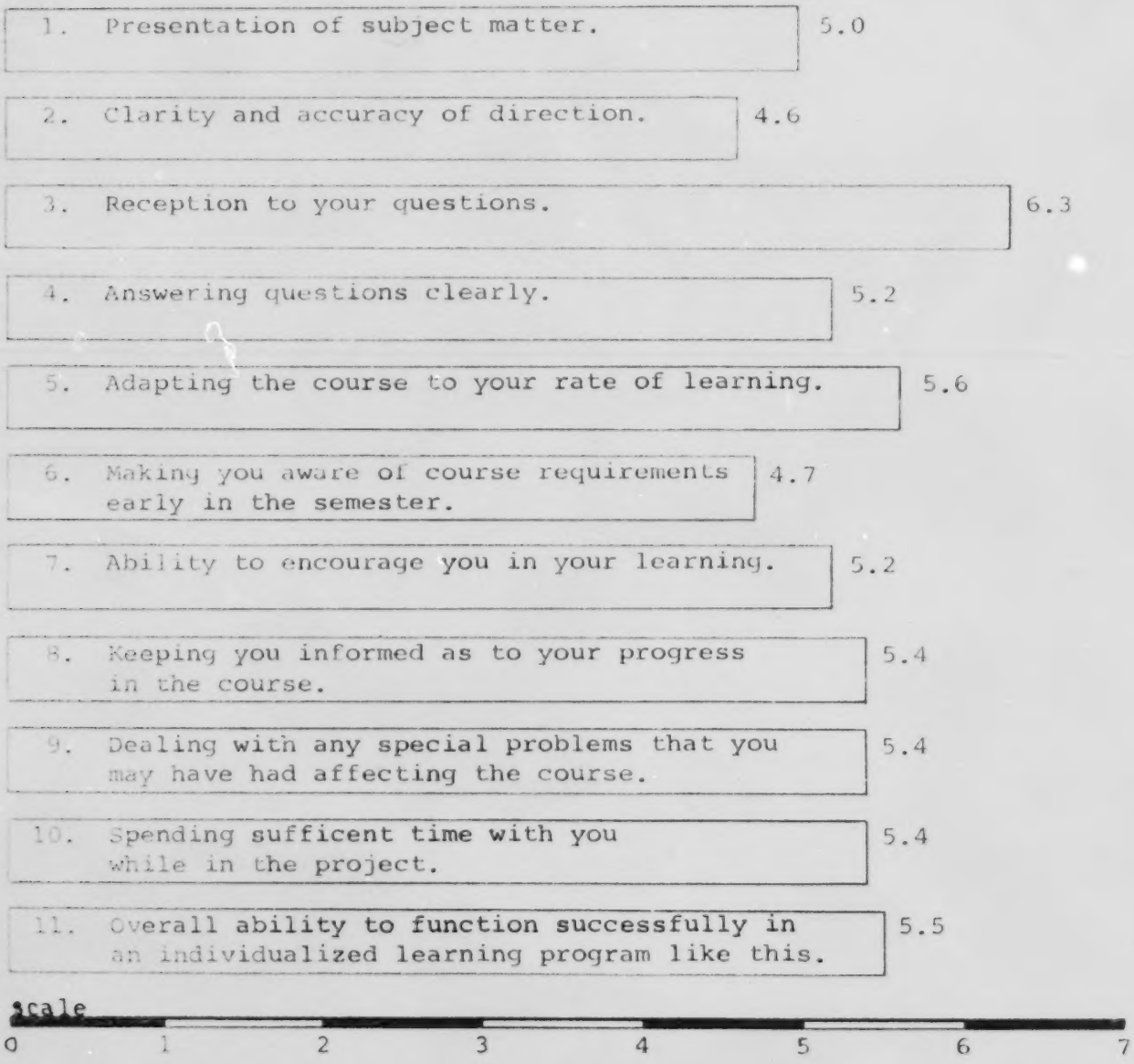
INSTRUCTOR EVALUATION--Walker/Parkersburg
Mean scores per question
Based on a scale of 1 to 7 - 7 being the most favorable response



The average mean score per question was 5.56
Standard Deviation = 0.32
Variance = 0.09

FIGURE 1b

INSTRUCTOR EVALUATION--American Cyanamid
Mean scores per question
Based on a scale of 1 to 7 - 7 being the most favorable response



The average mean score per question was 5.3
Standard Deviation = 0.46
Variance = 0.19

FIGURE 2a

COURSE EVALUATION -- Walker/Parkersburg
Students indicated positive, negative, or nonresponsive as shown

1. Were the test questions relevant to the material covered?

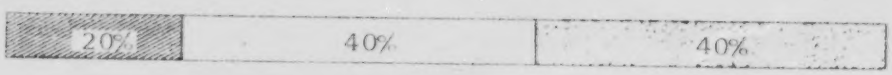
2. In regard to the materials in this course, do you find they are generally:

(A) Readable?

(B) Adequate in covering the subject?

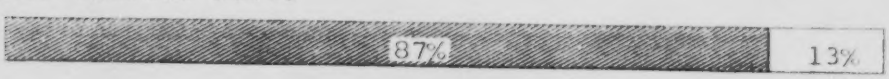
(C) Available when you need them?

3. Would you recommend the addition of any other materials to the course?

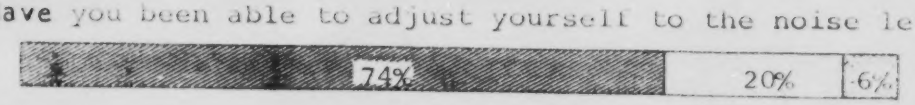


4. If you had a chance to take this course again, would you do so?

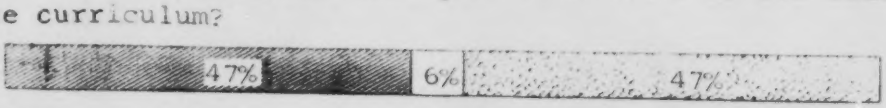
5. Is the IND-CAMP environment such that you would like to take other courses here?



6. Have you been able to adjust yourself to the noise level?



7. Are there any courses that you would like to see added to the curriculum?

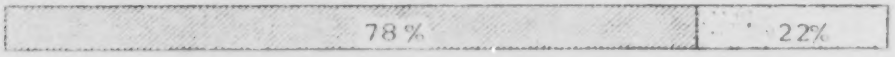


positive negative nonresponsive

FIGURE 2b

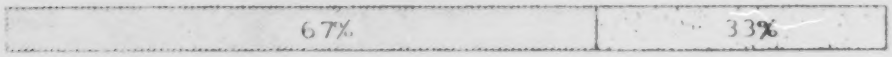
COURSE EVALUATION -- American Cyanamid
Students indicated positive, negative, or nonresponsive as shown

1. Were the test questions relevant to the material covered?



2. In regard to the materials in this course, do you find they are generally:

(A) Readable?

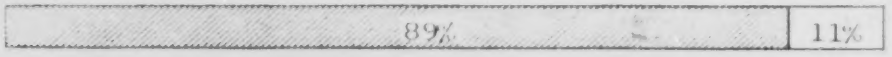


(B) Adequate in covering the subject?

(C) Available when you need them?

3. Would you recommend the addition of any other materials to the course?

4. If you had a chance to take this course again, would you do so?



5. Is the IND-CAMP environment such that you would like to take other courses here?

6. Have you been able to adjust yourself to the noise level?

7. Are there any courses that you would like to see added to the curriculum?

positive negative nonresponsive

FIGURE 1

CLASS HOURS REQUIRED TO COMPLETE COURSE--Walker/Parkersburg

Course Number	Course Name	Student Name	Hours Used To Complete Course
4104	Shop Math I	Christopher, Maynard	27.5
4104	Shop Math I	Corbitt, Richard	25.0
4104	Shop Math I	Domigan, Charles	27.5
4105	Problem Solving	Hadfield, Alma	21.9
4105	Problem Solving	McClain, Albert	27.25
4105	Problem Solving	Plassmeyer, Merle	22.5
4105	Problem Solving	Washington, Felix	21.5
4106	Report Writing	Miller, Donna	30.0
4106	Report Writing	Wareheim, Jerry	27.5
4107	Technical Writing	Walker, William	16.5
4108	Business Communication	Cumpston, Diane	26.25
4108	Business Communication	Wright, Jeanette	30.0
4109	Composition	Diehl, Edward	30.0
4109	Composition	Twyman, Robert	33.25
4110	Special Problems in Writing	Radabaugh, Gary	30.75
4113	Special Problems in Language Study	Mays, Loretta	22.0
4114	Special Problems in Language Study	Ankrom, Jack	30.5
1902	Report Writing and Design	Hutchinson, Dave	25.5
1903	Technical Writing	Coull, Dave	35.25
1903	Technical Writing	Parsons, Michael	36.0
1905	Business Communication	Young, William	28.5
1910	Composition	Beckert, Marvin	28.5
1910	Composition	Halstead, Charles	36.0
1910	Composition	Phillips, Luci	33.0
1910	Composition	Sandy, Carole	26.5
1910	Composition	Sodders, Thomas	30.0
1913	Shop Math I	Hendricks, Robert	30.0
1913	Shop Math I	Stewart, Larry	24.0

Total Hours - 783.15 Mean Hours - 27.96

Standard Deviation - ±4.64 Variance - 20.83

FIGURE 3a

CLASS HOURS REQUIRED TO COMPLETE COURSE--American Cyanamid

Course Number	Course Name	Student Name	Hours Used To Complete Course
4119	Special Problems in Writing	Morgan, Zeb	24.0
4119	Special Problems in Writing	Swan, Jack	26.0
4119	Special Problems in Writing	Buttrey, Carl	28.0
4119	Special Problems in Writing	Fries, Jack	24.0
4119	Special Problems in Writing	Buckley, Caroll	24.0
4119	Special Problems in Writing	Bailey, Bob	20.0
4119	Special Problems in Writing	Borsma, Jim	24.0
4119	Special Problems in Writing	Brunyate, Bill	22.0
4119	Special Problems in Writing	Macklem, Ron	24.0
4119	Special Problems in Writing	Smith, Rex	26.0
4119	Special Problems in Writing	Willis, Mitch	22.0
4119	Special Problems in Writing	Short, Bill	20.0
4119	Special Problems in Writing	Kurner, Chuck	24.0

Total Hours - 308 Mean Hours - 23.69

Standard Deviation - ±2.28 Variance - 4.82

FIGURE 4

COURSE OFFERINGS and ENROLLMENT--Walker/Parkersburg

Course Number	Course Name	Number of Students Enrolled
4104	Shop Math I	4
4105	Problem Solving	4
4106	Report Writing	2
4107	Technical Writing	1
4108	Business Communication	2
4109	Composition	3
4110	Special Problems in Writing	1
4113	Special Problems in Language Study	1
4114	Special Problems in Language Study	1
1902	Report Writing and Design	2
1903	Technical Writing	2
1905	Business Communication	1
1909	Special Problems in Language Study	1
1910	Composition	8
1913	Shop Math I	5
	TOTAL	38

FIGURE 4a

COURSE OFFERINGS and ENROLLMENT--American Cyanamid

Course Number	Course Name	Number of Students Enrolled
4119	Special Problems in Writing	13

of the student.

The different needs of each industry had an effect on teacher approach. Correspondingly, the different needs/psychology of each student had an effect on course content, causing a unique atmosphere for each student. Administrative support from the industries and the college was strong. Administrators of each industry and of the college gave support to student projects, showed enthusiasm toward the educational experience by visitations and discussion with students, and by requisitioning equipment and supplies, as they were needed. (Some particulars will be discussed in the section concerned with conditions of learning.)

[end of report]

REPORT FROM INSTRUCTOR #2 — MATH INSTRUCTOR:
(Ray Miller)

Five students at Walker Parkersburg Textron enrolled in Shop Math I during the first semester of 1976-77. Individualized Instructional techniques which had proved to be successful on the Parkersburg Community College Campus were used as the principle mode of teaching learning activities at the industrial site. Fortunately, many individualized math materials were also available as a result of program experimentation and development by personnel in the I.L.C. at Parkersburg Community College, namely: 1) a course syllabus, 2) supplementary hand outs, 3) a complete pre-test analysis, and 4) a unit test for each area studied. All of the items mentioned were specifically tailored to the individualized method of instruction and seemed to work very well with the industry related personnel as demonstrated by the previous course material evaluation results completed by the Shop Math I students.

The start up problems associated with new and experimental projects are well known in project administrative circles and seem to be generally accepted by the administrative sector. For instructors and students, the inherent "bugs" are often less well understood and not so readily accepted and often appear much larger than they actually are.

The FIPSE Administrators seemed to do a creditable job and produced a strong sincere effort to hear comments, concerns and criticisms from both project instructors and students. Most concerns were dealt with openly with the intent to solve problems as opposed to a fixation on establishing blame.

Top level administration at Parkersburg Community College is very supportive of the FIPSE/IND-CAMP project as demonstrated by the continuing personal involvement of the chief administrator (college president) and the project director with the instructors and plant site personnel. It appears that much of the project success is related to the direct communication access route between President Jerry Lee Jones and FIPSE Project Director Raul Reyes.

In summary, from the instructional level, communication and support from top administrative positions at Parkersburg Community College seems to be on going which strengthens the instructional efforts at the off campus laboratory at Walker Parkersburg.

[end of report]

REPORT FROM INSTRUCTOR #3 — ENGLISH AND LANGUAGE INSTRUCTOR:
(John Caserta)

At the beginning of the term I was provided with most of the

necessary materials needed, such as text books, paper, pens, various supplies, file cabinets, etc. I also had the administrative support of President Jones and his staff, Mr. Raul Reyes, the Director of Instructional Design and Development and his staff, the Individualized Learning Center staff and their materials, and the Learning Resource Center staff and their audio-visual materials. In the beginning there was some difficulty in obtaining audio-visual material because of repair problems but this was remedied by mid-semester. I found the use of tape recorders, Caramates, and a number of slide presentations developed by Mr. Reyes, of immense help. The materials could be easily transported to my teaching site and set-up in a matter of minutes, making it possible for me to individually tailor my courses on the spare of the moment to remedy a particular problem a student was having or to present a new lesson plan from a more creative angle.

Although I felt the format of my FIPSE courses and the project itself proved an overwhelming success, I do feel criticism should be leveled against "The Little Red Schoolhouse" which is the small building in which the FIPSE classes were held at the plant site of Walker/Parkersburg. The room, although large enough, was not especially conducive to a learning atmosphere. Several students objected to the freight trains rumbling by on the nearby tracks. Others were bothered by and distracted by the voices, noises, and movements of the other students. On several occasions the room was too chilly to sit comfortably in. The lighting gave off a glare which was often bothersome, and there was a depressing drabness about the room that often became tiresome. I would like to recommend that a section of

the room be partially enclosed by similar partitions used in the Individualized Learning Center at Parkersburg Community College. This would minimize distractions and noises, providing the students who desire privacy a little more comfort and a better learning atmosphere. Figure 5 shows instructional time spent by each instructor per week and this distribution of this time on a daily basis.

{end of report}

Plant and Industrial Personnel. As explained already, data from only the Administrative sector of this evaluation was ready by reporting time. Data from supervisors, though already fed back to project personnel informally, needs to be made a matter of documentation. Following, in Figure 6, is the evaluation from the Administrative sector, only, represented by the President, Thomas Sullivan, in the case of Walker Parkersburg (see also Modifications under Section 5 for other plants) and reproduced for the report. The orginal is on file.

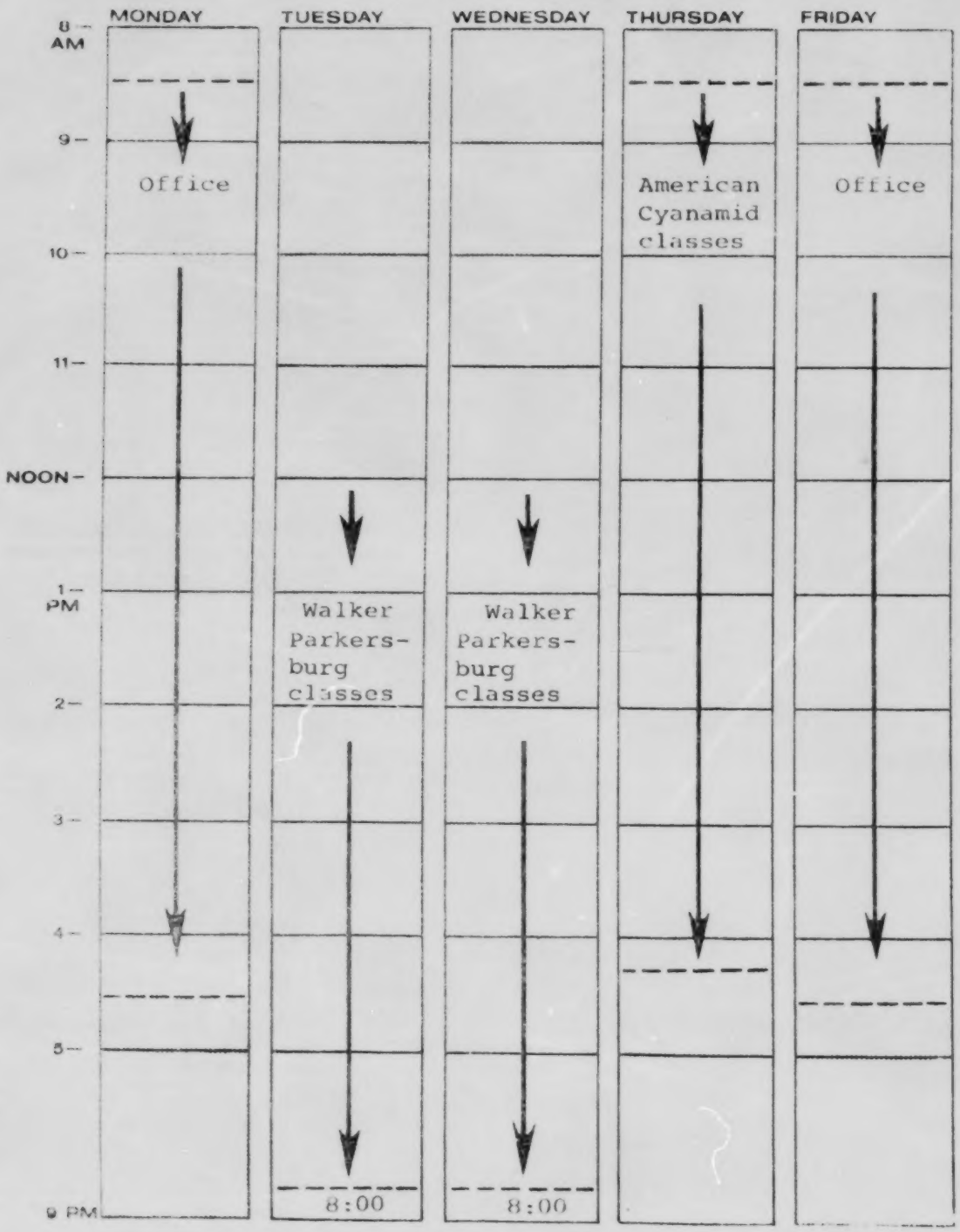
Out-of-Project Team. The Out-of-Project team's current status is less advanced. At present we have contacted and have received a willingness to accept the responsibility from the Assistant Dean of Instruction (representing the Dean's Office), from at least one English and one Math "regular" on-campus (in both cases, a regular who is also skilled and experienced in individualized instruction--the instruction being used by the project); from the Coordinator of the Plant Sites of the project's personnel, acting as data resource for the team. The plant representative will be furnished by the plant peopld in the near future, as soon as their choice is finalized.

The charge to the team, of course, has already been explained above in

FIPSE Schedule

Instructor Darryl Blecher

Office 126
Ext. 259



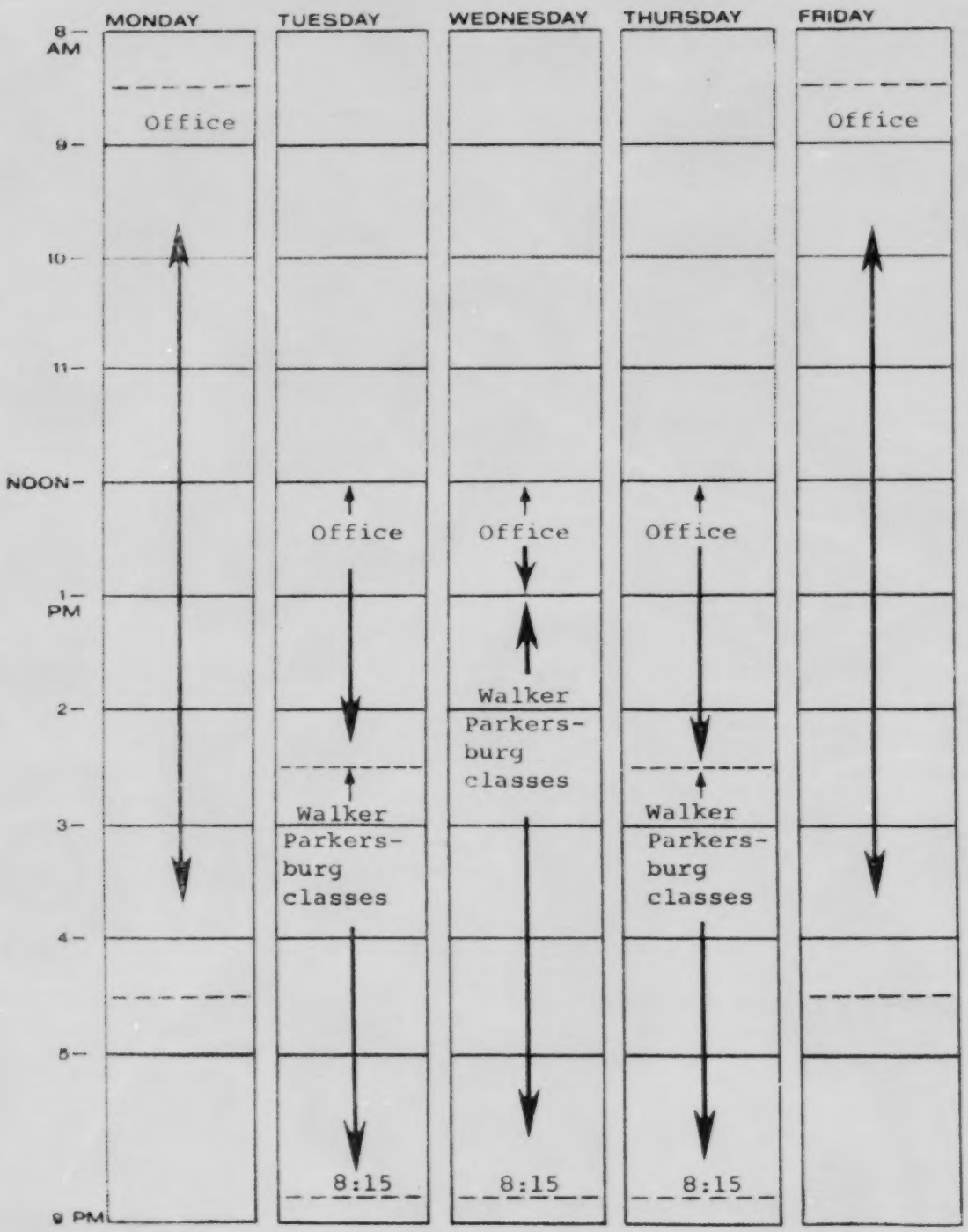
Budget FY 1977
Financial Status
Project Plan 77-78

FIPSE Schedule

Instructor John Caserta

Office 126

Ext. 259



Budget FY 1977

Financial Status

Project Plan 77-78

FIGURE 5a

FIPSE Schedule

Instructor Ray Miller

Office 159
Ext. 259

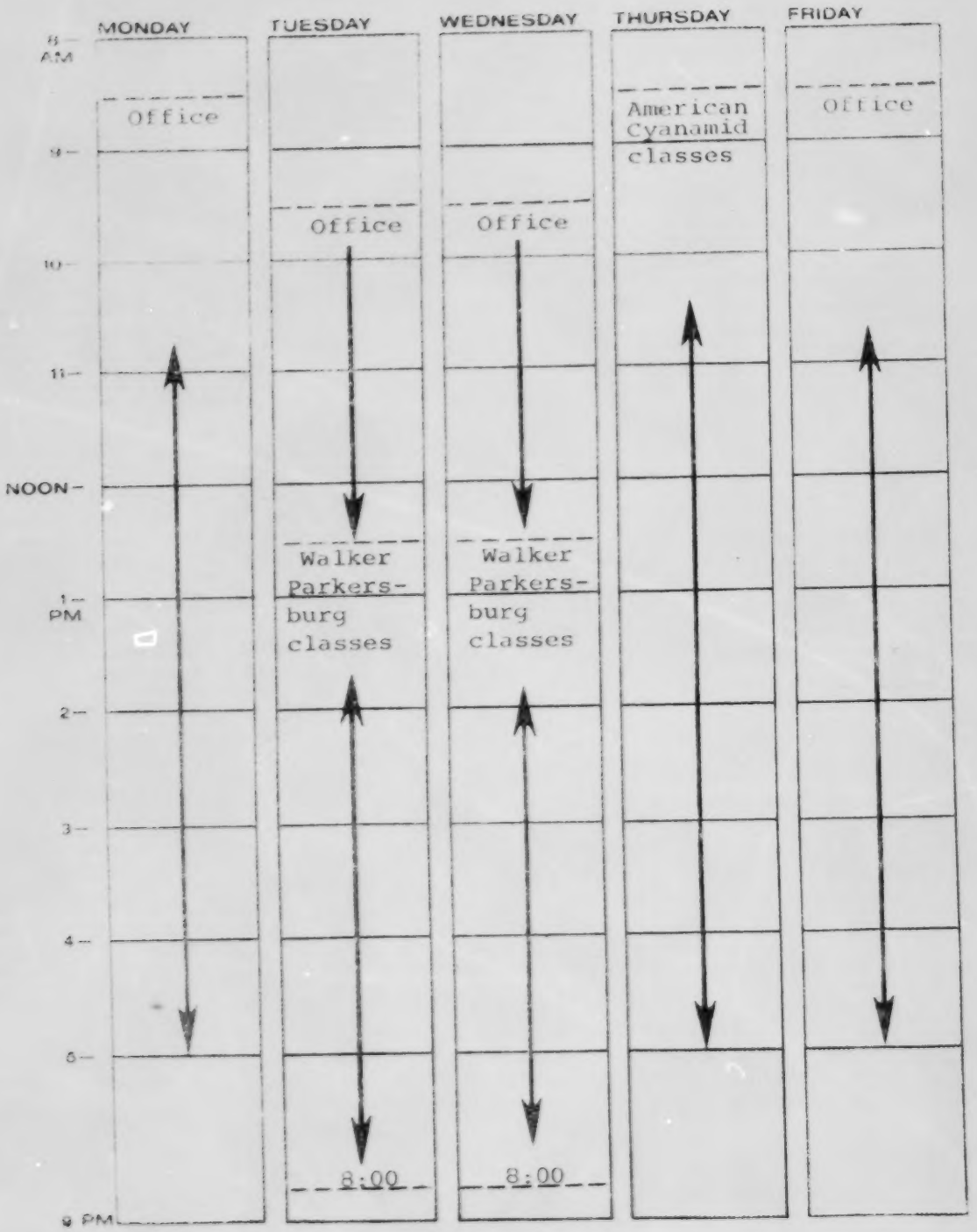


FIGURE 6

48

WALKER PARKERSBURG TEXTRON

Walker Parkersburg
Division of Textron Inc.

TO	Raul Reyes	FROM	Larry S. Grimsley
LOCATION	Pksbg. Comm. College	DATE	November 15, 1976
SUBJECT	IND-CAMP Program (Fund for the Improvement of Post Secondary Education)		

Dear Raul:

We feel the IND-CAMP Program is doing an extremely effective job in relating classroom learning to job improvement.

One student's past memos were critiqued by the instructor and re-written by the student. The outcome so far has been a higher degree of writing confidence and better written memos.

Another student, whose writing interest had lain dormant for quite some time, had that interest rekindled through attendance at IND-CAMP.

Other comments range from "I'm excited about it" to "This actually relates to my job, and that's what I need."

Of the original 38 enrollees, six have withdrawn, but only two of those were after attendance at more than two classes.

We think a certain amount of the program's success is directly attributable to the open communication between Parkersburg Community College and Walker Parkersburg. And we appreciate the cooperation.

Your instructors seem to be doing a remarkable job motivating the students toward improved job performance. As mentioned in our initial meeting, it is hoped the instructors and counselor can not only interest, but channel the students in the IND-CAMP Program to the point of "graduation" to classes on the Parkersburg Community College Campus.

Best regards,

Larry S. Grimsley Tim Dunbar

/vlc
cc: T. J. Sullivan
cc: W. E. Watson

this report. But the need to study the records, to consult with students and instructions and with plant personnel, will take time. Their part of the evaluation, therefore, is still in progress and will take more time.

- end of this section -

Section Four

Financial Status of Report

The major expenditures in this project have been for teaching personnel. The next item--and one that became more difficult than first realized (as it was reported to Ray Lewis, the project's Washington Director) was Travel, particularly the almost daily shuttling from plant to plant and from campus to plant. The only recourse seemed to be to rent two cars for the duration of the project. The expense shown, however, for such rental—in the case of the second car—is an expense for travel for eighteen months so that the burden of the same problem may be lightened during the second year (see Section 6, under Travel for same point, projecting for next year).

The travel for each car was estimated at the minimum of 140 miles per week. The price of rental listed, is the best price obtainable through closed bidding from local rental dealers. The terms of the rental contract and specifications to be met are reproduced in the Appendix in the reproduction of the rental contract use in each case.

In the case of the expense listed for instructional personnel, it was quickly seen that economics would have to be effected here as well. The major problem was that in certain cases it became obvious that the necessity for designing a certain course—one that would not fall in English or Math—meant hiring personnel who could teach it. For this reason, each request for a new course had to be examined carefully—mainly, was it worth the cost of additional materials and of additional instructional cost. In some cases the college has stepped in to furnish instructors for course work outside of English and Math without subtracting project money for the

contribution. This has helped enormously. An additional economy was also effected by training the English and Math instructional help to teach courses they had not previously been able to teach. Project staff development of this kind, in fact, has become a major advantage and a major element of interest in the whole proposal. Such has been the case in the instance of Speed Reading, for example. It is a course very badly needed according to plant workers. Yet our language instructors were not trained to do this work.

The project director, however, has done such reading work for many years. It has been decided, therefore, that the project director train the instructors in this area and they, in turn, take the responsibility of teaching this course in addition to their regular work. It will burden them on an already heavy teaching schedule, but they are willing and cooperative and feel it is the only way to effect success on a limited budget.

In the case of Blueprint Reading, however, it has been necessary to budget an additional instructor. The resultant course as designed has been so specifically and individually structured that the regular instructor is not feasible. But even if a regular campus instructor were available and willing to do the work, this does not mean the project could use him. This is because the real problem in using regular campus personnel lies in the necessity for an instructor to have a compatibility with plant workers and plant practices. It is here that the project has faced one of the most interesting and yet one of the most difficult problems involved, and the reasons are quite obvious.

For example, a plant worker—on the line—is a very direct, often blunt person. His range of experience as well as his knowledge has by necessity been restricted to a specialized line. He reacts much with the same restriction, mentally. Yet it is only a habitual condition with him, and he can be motivated to free himself from his routine reaction. But to do so means he must be treated and worked with by someone who cannot only identify with him but who can practice a great deal of patience in the situation. Too—in the majority of cases—it means an instructor flexible enough and willing enough to adapt wholly different explanations for routine points, to adopt even a different vocabulary, perhaps use different and more germane examples than he has used previously. What this predicates in the way of instructor flexibility, capability, past experience, personality and the whole range of personal factors, is a bit sobering. The result is that the average instructor—the one that happens to be available—the one that happens to be teaching the subject matter needed by the plant on campus, may not necessarily be the one that should be used when judged from the viewpoint of the personal factors just described.

What happens if the instructor is put into the situation anyway? This is not difficult to predict. Students will probably cease coming; they will be blunt even caustic in their reaction; and the project will surely suffer. Student reaction is very free and blunt in projects such as these.

At this writing, part of the reasons—perhaps one of the major parts, in fact—for the project succeeding so well lies in the happy circumstances of choice of instructional personnel. The instructors have been accepted by the students beyond what was even expected. It has come to the point,

that talk of adding a new instructor brings quick concern from the students that they may be "abandoned" to a "new face".

The project has to take this reaction in mind. Yet some demands are simply not going to be met by existing personnel. Blueprint Reading is a case in point, as is the demand for Public Speaking that has also developed. A plant wishes to have its top administrators proficient and at ease before television cameras and in public or on-camera interviews. The top administrators "picked" to be trained, in this way, are nervous, doubtful, somewhat "panicked" individuals at the thought of the on-camera and public speaking training that they will have to undergo. No on-campus speech and public speaking teaching personnel were available; but had they been, the question would have had to have been considered—mainly, could they have met the sensitive personal relations that were involved, this time not with on-line people but with top administrators whose position is sensitive not only to the company but to themselves, to their peers, as well as to their subordinates. There is little to match with the diplomacy needed to instruct high level executives—men who are capable and expert at their jobs—to improve their performances and, therefore, to enhance their positions. It boggles the mind somewhat to consider sending a fresh, perhaps untried, by-the-book "faculty type" to accomplish the task. Not that such a person would not "know" his subject—but that it would mean adapting what he knows and evaluating and adapting his approach and material so drastically to fit the cases. The "gap" or "differences" from the classroom would simply be too much. Here is the crux of the "discovery"—if it can be put this way—that this project has slowly made obvious to this college. And again, it is necessary to emphasize what this discovery means to traditional instruction

as we are presently doing it--the traditional methods from which this project is varying. One can wonder how long Education can continue with what is here being called "traditional" instruction.

Conclusion:

The point all this makes to a discussion in budget, of course, means that money must be spent carefully on this project where teaching personnel is concerned. It is a major problem in the project (see further on this in section entitled Problems). It has been felt that with the economies already described, one solution may be to keep a list of potential instructors with the right qualifications, as has already been described. From such a list instructors can be drawn—perhaps for a four-week course as in the case of the Speed Reading and the Television Presentation for Executives—a one-time, one-package situation--or perhaps for two or more packages, even up to full-time. For this reason, the project will have to be skimping on and has been on paraprofessional aides. This first semester no such aide has been hired. The instructors have kept records and files and have done their own paper work and laboratory duties.

It has been quite difficult for them, however. Some aide will have to be obtained. The college hopes to help by contributing, as it has already, as much clerical and support aide that it can give. The savings effected will not be enough, but it will help to contract for instructional help for second semester.

There will surely be no "carry-over" funds. There will be a deficit of funding and perhaps even a greater one as the project continues the second year.

Below follows the financial data itself, showing what has been encumbered to date. The additional teaching personnel will have to await encumberance as the second semester's roster of classes are worked out and this project continues. Plans to date also show a heavy need for clerical and paraprofessional help, especially with such courses as Speed Reading where continuous guided work is needed.

Personnel:

Instructor #1	Annual Salary (9½ months)	$ 9,590.00
Instructor #2	Annual Salary (9½ months)	9,590.00
Industry/Education Specialist	Annual Salary (9½ months)	12,360.00

Travel Expenses:

Dates	Location	No.of People	Purpose	Total Amount
10/13-17	Chicago, Ill	1	To attend workshop for FIPSE Project Directors	$ 169.46
Sept-Oct	Travel Expenses up to $100.00 for interviewees for FIPSE positions	6	Interview	286.95
11/5	Institute, WV	1	To confer with FIPSE Project Director at COGS	8.65
11/19	Institute, WV	1	To confer with FIPSE Project Director at COGS	8.88
Car #1	Travel from campus to plants on daily basis Rental fee on bid basis.			2,385.00
Car #2	Travel from campus to plants on daily basis Rental fee on bid basis.			5,000.00

Consultant:

None

Materials and Supplies: 3,403.83

Equipment: 655.00

GRAND TOTAL---$ 43,457.77

- end of this section -

Section Five
Next Year's Plan for Project

In this section, the bases for the continued activity of the project for a second year will be discussed. Generally, the project proposes to continue in the mainstream of its already established activity. Specifically, the plan will be as follows:

Objectives

The project feels that the same nine-point project should remain the central focus of the project (see Section Two, Current Status of the Project for discussion of nine-point program). What activity has revealed thus far is not only the soundness of the nine-point basis but the great importance of points number eight and nine.

As stated already, it had been predicated that these two points—adapting course work to industrial needs and designing new course work as needs indicated, would be crucial. But what is even more rewarding is the challenge and enthusiasm which these two points have generated in project personnel.

Some Developing Challenges. The proposal has—in the minds of its personnel and the college—seriously challenged traditional instruction. It has caused a re-thinking to take place where two points especially are concerned—1) the practice of teaching subject matter in the framework of theory only, and 2) the question of student motivation and learning. The conclusion that seems emerging more and more is that the one point may be affecting the other in deeper and more important ways than even first envisioned. Following are some observations made particularly along these lines.

For example, judged by the experience of the project's personnel, most students studying in a traditional environment do not respond to theory with the same enthusiasm and interest as student's in this project has responded to "applied learning." Those who do, are precisely those who function well in the highly theoretical atmosphere of college. This is the deciding or major factor in their success. But it may happen that they are more in the minority than we think and, contrary to what may be a tempting conclusion to draw, not necessarily the better students. There are entirely too many instances of highly motivated, but highly bored "drop outs" who leave school to follow a road of great success. To learn on a theoretical basis, in short, may only be a happenstance, a "thing", a person may be able to do without necessarily anything coming from it in the way of a guarantee for outstanding or great success in applying education to life's problems. But the approach in this project has been from the beginning to deal with the student in the way that he best learns. And "applied learning" is clearly their choice. It may be that traditional students would learn traditional subject matter and learn it excellently if it were only put into a framework of applicability and realistic demand than in the traditional framework which almost invariably starts out: "One of these days, you'll have to know how to—etc., etc."

Does this mean the traditional classroom—the center or locus of theoretical type teaching—is limited, if not questionable? Yes, it could mean that. It may also mean that Education of a practical or a professional nature should have never entered the classroom in the first place. It should

Budget FY 1977

3. Interest is generated in the plant by carefully prepared announcements,
4. A willing group of students is generated,
5. Registration takes place, and
6. Instruction begins.

If new course work needs to be designed to fill the need there is an interruption in the line of that activity at the point where the need is first expressed. At this point the following has to take place:

1. Objectives have to be made clear (this means several consultations with plant personnel),
2. A package to meet these (if they are possible and genuine educational needs) must be designed, and
3. An instructor found who is capable or who can be trained to be acceptable.

This line or base for procedure has already worked well, this Fall; it served excellently so far for the second round of enrollment and course work this semester (Spring) as well. It will probably continue to work as well during the second year. There are problems with it, of course, (see Problems in section which follows). But solutions have suggested themselves.

Time Table

During the first year, the schedule envisioned for the project has been honored, with hardly any deviation if at all. Perhaps a review of the year will help explain the bases for the second year.

From the month of June to the opening of the Fall semester, personnel (especially the instructing personnel) were interviewed and hired. The fulfilling of the needs in this area in terms of instructors was more difficult than anticipated. First of all, the Director of the Individualized

Learning Center (ILC)—Ernest Cronan—who had been chosen as the liaison and coordinator of the instruction on plant site and the ILC took a position in another college.

An interim director, one not acquainted with the pre-planning or as well as versed in the workings of the project, was appointed. The interim director cooperated willingly and helped select the final personnel, but a major realignment of planning had to be made (as reported to Mr. Ray Lewis, at the time). The first part of the solution was to increase the role of the counselor--originally planned as part-time position—and to make of the position not only counselor but coordinator in place of Mr. Cronan.

A new job description (see Appendix where all job descriptions are explained) was developed, and a person to fit the responsibility of the expanded position was hired--Ray Miller. His credentials fitted the job (see Project personnel biographies and credentials in Appendix), and included training in industrial management techniques as well as counseling and testing and measurements.

It took the majority of the summer to find the right personnel. And again it should be emphasized that it was the unique blend of background, personality, and instructional expertise that made it so difficult. Close to three hundred applications in the field of English alone were reviewed from new and existing files and of these at least fifty were interviewed by telephone and/or personally. It was decided early in the search that it would be best to look for a person with the basic qualities of personality and experience that would be compatible with the plant or industrial

environment and personnel, and train that person in the elements of individualized instruction and on-the-job adaptation of materials. To find anyone, otherwise, would be almost impossible. It would have been necessary to find someone who would not only have all the qualifications of the job description, but who would also have been expert at individualized instruction, especially the kind of individualized instruction developed at this college. Few institutions have developed as well along this line as this college.

Even this compromise seemed to help little since it was obvious to the project director (and had been from the beginning) that the traditional instructor-type in the profession is not really qualified to handle the unusual demand of the project. The more typical or the more traditional, in fact, the less likely the person to be. Another "interesting" but still "disturbing" development of the project.

The personnel finally chosen, however, have since justified all the time and even the postponement of classes for the two weeks (from late September to October) that it took not only to find them but to train them.

Still the end of the first semester coincided well anyway with the college calendar. Classes started on January 10th on campus and will start on February 1st on the plant sites. No hardship has been experienced in this respect.

Classes, the second period, will end in mid-May it is expected, and evaluation and wind-up reporting will take place through the rest of the month and June.

On the other hand, the second year will begin with an advantage in the

respect that the personnel hired will have their first opportunity to design the materials and the course adaptation that so far experience has shown to be necessary. In addition, new courses will be designed during the Summer interim and further training in individualized instruction and techniques of educating students under unusual conditions will be continued.

Also a more useful and active list of potential instructors will be developed and personnel interviewed and made ready for employment when it arises (see Modifications, following, for more on this plan for instructional help).

By Fall of 1977, the project should be ready to begin its second year in a much superior position than it was this last Fall—both in trained manpower and teaching resources. The same educational time table as this year will probably follow from that point on.

Modification for Project

There is a need for only one major modification and it is one that can be effected with little if any change of philosophy or intent of the project thus far. But it is important.

This modification came from the development of interest in the project that was generated in other plants. Originally the grant argued that only one plant was necessary to put the project into action. In fact, it was felt it would strain the project too much to include more.

Interest, however, has been very impressive, and requests from other plants began almost immediately to come in. At first, it seemed a windfall

of interest that posed more ill than good. The project tried to envisualize full operation with full schedule of courses and instructors at all of the plant sites, and it was obvious that the funds were completely inadequate. But a solution was evident in the very nature of the demands that began to come in. The demands—outside of the one major plant, Walker Parkersburg, originally selected—were in most cases demands for single courses or, at best, single packages of instruction. In every other way, the situation and conditions were the same—a laboratory site furnished on the plant premises, a student group derived from the work force, tuition paid by the plant, enrollment and counseling the same—but as stated, for only one major program or one major problem area. For example, in one case it was a series of courses in English Composition, including Report Writing and Technical Writing. In other cases, it was courses in Audio-Visual and Public Speaking performance. Still in another it was Shop Math for purposes of applying with Production Control or Quality Control. In addition, a cadre or list of instructors was developed from which instructional talent for these and other such courses could be picked on a one-time or one-project basis. So far, this has worked well.

In this fashion, the project has negotiated and accomplished a series of courses in Report Writing for American Cyanamid, another series in Audio-Visual and Public Speaking presentation for Borg-Warner. In addition, new programs for this coming session are being planned: Speed Reading, Television and Public Speaking Performance, Creative Reading and Writing Projects for Plant Personnel, Sheet Metal Layout, Blueprint Reading, Business Letters and Memorandums for Industrial Administrators and on and on.

Other Major Developments. Yet another major development has occurred, this time in the portion labeled "Long Term Objectives" the original proposal (see page 6 of original proposal). It was considered that a major benefit might come from the project in that plant personnel might be motivated by the plant instructional experience to register and to begin regular programs in college. Thus, a student who might otherwise never have thought of engaging a formal program, would be encouraged to begin and perhaps eventually to finish complete program.

Not only has this occurred, but in additional dimension to this idea has appeared. This latter has to do with the Board of Regent's Degree, available in West Virginia, whereby students may get credit for "life and professional" experience—through competency examination and documented claim—toward a full four-year baccalaureate degree. An industrial plant has revealed itself as a most logical and natural source for this kind of student and potential degree. For example, one employee, employed in "Industrial Engineering" at Walker Parkersburg, is readying thirty-three years of Engineering employment and activity in this and other plants, as a basis for a Board of Regent's degree. This student and others like him are the subject of a report from their instructor in the section entitled Impacts.

Thus, modification in this case has been in the form of added rewards or advantages. With the extra plants working with the project on a one-package at a time basis, and with the project proceeding in full swing with the original plant selected, it would seem that the project is getting maximum visibility and achieving maximum impact not only on the educational

premises it is testing and challenging, but also on the surrounding community which this college is striving to serve with quality instruction.

- end of this section -

Section Six
Budget for Next Year (FY 1977)

The budget for next year is itemized on the form furnished. As can be seen, the funds have been rearranged to solve some of the problems discussed. In this case, salaries for instructional personnel have been increased, including the salary for the coordinator/counselor labeled Industrial Relations Coordinator in this budget.

Less money has been budgeted for paraprofessional and clerical help, and more money for Travel than previously considered.

The arguments for this adjustment were given in Part Four, entitled Financial Status of Project. The travel figure given in this budget, includes the trip to Washington at $35 a day for three days, and $25 ground travel and round trip transportation for the Project Director's Meeting.

The school will continue to furnish the following funds:

	Director of Laboratory on Campus	$ 17,800
	Fringe Benefits for all personnel hired	12,780
*	Additional instructional help when schedule on campus allows it	3,000
*	Clerical/Typist support when needed	5,500
*	Printing and Duplication of Materials	3,000

*The college furnished one instructor for a three month pilot project period beginning mid-May for this project and paid his salary from institutional funds. Also clerical/typist support was furnished at different times, including such support for this report. Printing and duplication of materials were also donated. What is meant up above is that the college will continue to commit itself to such support the coming year on the pro-rated basis of what it has furnished this year.

Personnel

The budget will again support two full-time instructors and one full-time coordinator. This is the same as this year has seen. Other professional help will be contracted on a one-time, one-project basis as explained in section of the report dealing with the Financial Status of Project (see Conclusions at the end of Part Four. Financial Status of Project).

Funds for use for instructors on this or part time basis has been included and budgeted in the professional total shown on the budget form. Itemized, professional personnel breaks down in the following ways:

Instructor in English	$ 12,500
Instructor in English	$ 12,500
Coordinator and Part Time Instructor	$ 14,560
Fund for Additional Personnel on Contract Basis	$ 19,440

Travel

The two cars rented the first year will form the basis for travel expenses this second year. Yet, since the second car was not leased until almost mid-year of this first year, it was considered more economical to have the local car rental companies bid on a projected eighteen-month rental period (end of second year of project) and simply absorb part of the travel expenses for next year in this year's budget. The savings would then be channeled to instructional and paraprofessional salaries, where the real financial stress is on this budget. The rental fees projected for next year are on the same basis of projected mileage (a minimum of 140 miles a week) and rental specifications used for this year (see rental contract and specifications used this year, in Appendix).

Non-Professional Personnel

It will be necessary to have some laboratory aid in the way of clerical help and assistants-to-instructors. Yet as badly as this help is needed, only one paraprofessional can be budgeted under the limitation of the budget already arrived at for second year during pre-funding negotiations. The same with the clerical/typist aid. Itemized this means the following:

Paraprofessional (1)	$ 6,000
Clerk/Typist (1)	$ 6,000

- end of this section -

BUDGET
1st Year Only
(Use same format for each continuing year)

BUDGET ITEM

A.	Direct Costs:	
1.	Salaries & Wages	
a.	Professional*	$ 59,000
b.	Consultant*	500
c.	Clerical/Paraprofessional	12,000
2.	Employee Benefits	- 0 -
3.	Travel*	6,000
4.	Materials & Supplies	2,400
5.	Equipment (Purchase or Rental)*	- 0 -
6.	Production (Printing, Reproduction, Audio-visual)*	- 0 -
7.	Other*	- 0 -
B.	Indirect Costs:	- 0 -
	TOTAL	$ 79,900

Institutional Support (1st year total) $ 42,080

*Items to be detailed in Budget Narrative, if applicable.

Section Seven

Impacts of the Project

It was considered by the project director, early in the planning, that an attempt should be made to assess any impacts made by the project (see point #6, parts a, b, and c in first part of section entitled Current Status of Evaluation). The effort was made, therefore, to gather all the data that might contribute to this kind of evaluation. Following are reports and data, including some anecdotal narratives involving specific case histories, submitted by project personnel. It was felt that it would be best to include them exactly as written without change or editorial comment.*

*Reports follow:

IMPACTS REPORT FROM INSTRUCTOR #1 — Darryl Blecher

While in San Francisco I worked as a tutor for the Equal Opportunity Program. This was right after receiving my Secondary Teaching Credential. Well—the dichotomy was stark—two dimensional. I became aware that there were many more advantages for the one-to-one approach than could be said for the traditional classroom approach. I began to speculate about the possibility of large scale use of some form of this method; however, not being a financial expert nor an administrator with access to current educational programs—my thoughts remained ethereal speculation.

When the FIPSE Project and I were introduced to each other my speculations began to become reality. Here was my chance to teach, and watch my students learn, faster, and to teach more, better, and with greater comprehension. One of the greatest aides or catalysts to teaching is a sound emotional tie with the student, one of trust and understanding. This sound emotional tie is implicit to effective teaching. The individual learning approach cuts the wasted time incurred by traditional approaches to the grading process. This is done by using the grading process as an active learning process.

Allow me to give a case in support of the individualized approach. To preserve anonymity, I will call the student X. X is a woman. She works at Walker Parkersburg Textron. She is an assembly line worker, and is about thirty-five years old, married and divorced several times. When I first met Ms. X, I learned that she lacked confidence in herself. Her lack was great, so great that it affected her work in the industry and her learning with our project. I was faced with an old problem—do I just go about teaching and ignore this problem; and, can I really expect a normal amount

and of learning to take place? In a traditional classroom, Ms. X's disability would be considered within the realm of subjective learning and it would not be proper to sacrifice time from the whole (classroom) in order to address her particular problem. But with a one-to-one approach—objective and subjective learning can occur at the same time and with greater frequence than in a traditional classroom. At the end of the course Ms. X not only improved her writing, she improved her self-image.

The difference between scheduling classes as part of the work day and scheduling classes after the work day is not extremely subtle. Generally, I found that those students who took classes during their forty hour week had some trouble making the transition from the work to the class knowing they were to return to work; however, they did enjoy the fact that the industry (American Cyanamid) paid for their time within the class. Many of these students were not in the class voluntarily. And for those who took the class after their work day (Walker Parkersburg Textron)—many times they were tired, but since they all volunteered to take the classes they didn't mind the time spent in class nor their tiredness. On the whole I would recommend that classes be taken voluntarily. Whether the classes be part of the work day or not—well—I'm sure the students would enjoy the company paying for the class and for their time also.

[end of report]

IMPACTS REPORT FROM INSTRUCTOR #2 — Ray Miller

The FIPSE/IND-CAMP Project seems to have made impacts in several areas directly related to instructional concepts and methods. Some of the imput areas are: 1) the instructors previous concepts of teaching and learning; 2) course content and; 3) student motivation. A closer look at each of the areas brings into focus the specialized nature of the total concept of the on-plant-site educational process.

Instructor out-put and performance are usually correlated closely to his/her previous concepts of teaching and learning. Research indicates strongtly that instructors generally teach by using many of the methods and techniques they encountered as a learner and therefore find it difficult to radically change their pre-learned habits of instructions. It therefore becomes necessary to give considerable attention to the personnel hired to perform individualized instruction as it is often difficult to re-orient or retrain the instructor. The FIPSE/IND-CAMP Project has been indeed fortunate to secure personnel with knowledge of and training in the specifics of individualized instruction methods.

A second major impact area for instructors is course content. As the individual learning/teaching process deviates somewhat from the normal, traditional classroom approach, materials need to be specially adapted or designed to fit the individual student.

This concept is a departure from accepted practice of providing each student in a class with the same quantity and quality of materials. Many of the materials used in the IND-CAMP project required major redesigning or modification before adoption at the plant site. This was less true for the Shop Math I course mainly because of previous modification performed on the materials at the Individual Learning Center at

Parkersburg Community College. Through articulation with the I.L.C. much of the laborious task of design and development was minimized by the direct transportation of math materials to the off-campus laboratory site. Math related materials used at the plant site are as follows: 1) a course syllabus prepared specifically for individualized learning methods, 2) supplementary hand out material to offer special assistance in areas found to be especially difficult during individual study, 3) Pre-post and Unit Tests designed to aid the instructor and student in making decisions about material to be omitted or other areas needing additional attention.

The accessiblity of the above materials and resources greatly aided the implementation process of math instructors at the plant site.

Another major concern of the plant site instructor is the subject of student motivations. Is it possible to keep a student motivated in the individualized learning setting with less than desired physical facilities and high fatigue levels brought to the class after an eight hour day in the factory. One demonstration of the ability of course work to hold students is the drop out rate which is less than twenty-two per cent of the total number of students who were enrolled during the first semester at Walker/Parkersburg. This would seem to indicate a high level of motivation on the part of students who enrolled.

Another indicator of student motivation is the FIPSE course evaluation instrument administered to participants in classes. The results of the survey (see Figures 2a and 2b) shows that student needs were being met and most said they would sign up for additional course work if it were offered.

Human interest stories and personal aspirations also became known as the classes progressed. Student X who was enrolled in Shop Math I admitted that he had always wanted to learn math but was afraid of the stigma of failure attached to the traditional class room. Treated as one adult individual, however, he progresses well after receiving assurance that emphasis was being placed on solving problems and learning rather than talking about blame for failure in performance. Student X progressed well and continued to improve both in performance and confidence in himself.

This anecdotal record could be repeated several times using other students as examples which seems again to indicate the positive effect of individual instruction.

[end of report]

IMPACTS REPORT FROM INSTRUCTOR #3 — John Caserta

My teaching activities in the FIPSE Program this past semester have developed their own special character. There were several important facets that formed the binding of my FIPSE format.

The first concerned the diversification of the human group involved in the inception of the project. There were approximately seventeen students, ranging from twenty-four to sixty years of age and consisting of management personnel, supervisors, common factory workers, an industrial engineer, a draftsman, and a carpenter, all of whom successfully completed one of several language courses in English Composition, Technical Writing, Business Communications, Report Writing, and Problem Solving.

The second factor, and most critical, was the orientation and introduction of my own descriptive learning environment techniques which I cultivated depending on each student's own immediate needs and desires rather than employing the usual prescriptive set-up and procedures which generally define the traditional classrooms. I felt the fostering of such a traditional learning climate would neglect the student's particular needs and problems, strangle the effectiveness of my teaching abilities in such an unconventional situation, and hamper the survival of the group's interests in the learning process.

The third, and also quite critical consideration which determined the uniqueness of my format's binding, was the emphasis that I knew must be put into achieving teacher-student relationships which had to be open and friendly in order to create an atmosphere conducive to learning. I felt one of the major strengths of my teaching hinged on avoiding or creating any kind of threatening situation for the students. I believed

the more relaxed and receptive the students felt, the more I would be able to encourage the learning of positive attitudes and self-confidence, and develop an independence in each student so he felt that whatever he needed to learn could be learned and useful to him and in his job.

One of the techniques I used to develop and keep up this "open-relationship" with each student was to continuously insist he participate in helping me design and redesign the course he was taking, and constantly urge him to discuss with me the setting of both his short and long range goals throughout the courses. By doing this I was able to show the student he was initiating his own learning process and involving himself in a realistic learning situation.

The final was that, I spent over four hundred invidivualized hours of teaching time over a fourteen week span. This did not include time spent in course preparation and various busy work and necessary reports required to keep the project and classes running smoothly.

The freedom to tailor a course to fit the particular needs of the student and the challenge of relating to the student on a one-to-one basis has become an exciting, creating and rewarding experience for me and my students. At the end of the semester most of my students reported to me that they felt the courses were well-designed, worthwhile, stimulating, fun, and that they learned more than they had expected to. Most of my students felt that the flexible teaching methods and individualized instructional techniques that I used were the key to their doing well in their courses. They commented that their courses had realistic goals and were organized around their everyday experiences. A few students

remarked that it was difficult some days after working eight hours at their jobs to come into classes, but few ever missed classes.

With the exception of one or two, most of my students are returning again this coming semester for more course work. Several of my students: Dave Caull, Jerome Wareheim, Bobby Twyman, Carole Sandy, and Bill Young have asked if it will be possible to take more than one course from me next semester and said they were willing to pay for the additional courses themselves. They have expressed interest in literature courses and other writing courses.

Last semester's FIPSE courses have generated quite a bit of enthusiasm and many students on their own initiative have enrolled in additional courses at Parkersburg Community College which are not offered by the FIPSE project. And a few are seriously considering returning to college to work toward a degree. A prime example is Wilson Caldwell. Wilson is in his mid-fifties and has over thirty years industrial engineering experience. He has been going to college off and on for thirty-five years and has earned close to sixty hours of college credit. Wilson, a student in my Business 146 class, is an excellent student, a good writer, and a quick learner. Wilson enjoyed my course and felt it was the definite factor which renewed his educational interests. I introduced Wilson to the BOR degree program offered at PCC which allows qualified individuals to earn an equivalent number of college credits for work experience, skills, hobbies and other valuable knowledge learned through their living experiences. Wilson immediately put himself to the task of earning his BOR degree and more than likely he will become an excellent and successful candidate in the very near future.

However, Wilson Caldwell, who is an excellent learner, is not my typical FIPSE student. But neither is Henry Beech exactly my typical student. Henry is significant because he represents many of the individualized learning and language problems, my average students have, all rolled into one person. In example, Hilda Harrison is in her forties, of average intelligence, a poor writer, but can recognize a well-written sentence and knows where to use a period. Richard Nest is a supervisor in his mid-thirties, of average intellegence, but has trouble writing a clear, concise, sentence and uses punctuation and grammar rules incorrectly. Alice Sturm, a supervisor near forty, above average in intelligence but an average writer, has difficulty in organization, transition and with wordiness of expression.

At the beginning of the semester Henry manifested all of these language and learning problems and more, besides being a poor reader. Henry, fifty years of age, has been employed for the past several years as a carpenter for Walker/Parkersburg, and enrolled in my Problem Solving and Decision Making course which was to be work related. He lacked self-confidence, was rather quiet and shy, and at first, kept himself isolated in one corner of the classroom away from the other students.

It seemed evident that Henry lacked the advantages of any worthwhile formal education. After a few discussions with Henry in an attempt to evaluate some of his problems, I realized Henry had a high natural intelligence. What he didn't know about "book learning", Henry made up for it in his carpentry and mechanical skills and in his knowledge of farming and agriculture.

Henry and I both agreed one of his problems was to learn to write better, that learning to write better would be worth learning, and that Henry would be expected to take an active role in helping me figure out the best way to achieve our course goals. Knowing Henry's limitations, I completely discarded the traditional grammar approach which basically would only serve in prescribing rules that Henry couldn't possibly respond to since learning such things as "a noun is a name word", etc. would have no meaning for Henry or help him to learn to write a coherent sentence.

I convinced Henry that if he learned to write better he would be able to express himself more clearly to other people, and in turn he would feel better about himself. So Henry and I devised a course in which he would, first, pick out "a target of importance" and then using a tape recorder verbally identify and express the importance of his purpose for complaining about specific problems which he felt may be related to his life, job, or immediate needs.

Henry's first "target recording" zeroed in on the problems he was having with his carpenter shop, and their related importance to him and his job. I then played the tape back several times for Henry pointing out such things as his grammatical mistakes and sentence errors. After this we re-taped the carpenter shop problems again paying particular attention to the previous errors he had made. Finally, when it sounded good enough we then began writing several rough drafts from the tape until we had a final paper which expressed clearly and coherently the problems with his carpenter shop.

Unknown to me, Henry submitted his paper to a "Better Idea Programs"

at Walker/Parkersburg and he was awarded a gift of several thousand top value stamps for the significant improvements recommended in his paper about his carpenter shop.

I used other modes of instruction for Henry throughout the course besides the tape-writing sessions. By the end of the semester Henry was getting a feel for the language and could write a fairly improved paper compared to his aborted writing attempts at the beginning of the course. Henry's reading became better and there was a remarkable improvement in his self-confidence and his trust in his learning abilities. Henry still has serious language problems which can be eventually improved through several more remedial and developmental courses. Henry has an immense desire to learn and such courses in individualized instruction provide students such as Henry with important purposes for learning because they realize they are related to their everyday lives.

[end of report]

- end of this section -

Section Eight
Problems Encountered in Project

Predictably, the project has experienced certain difficulties and problems. The problems and difficulties are interesting and, in their way, quite instructive. It is for this reason that it was felt that a particular section should be included in this report, describing these and some of the "lessons", as it were, that these have taught the personnel involved.

Plant Reaction

An industrial plant can be and is a world of its own. Its environment of production schedules and manufacturing of products can be quite foreign to an academic type or to the traditional professional educator.

One of the main difficulties in projects of this kind, in fact, is due to the difference between these two worlds. In a plant (and in industry, in general), there is a pragmatic—let's-see-it-work, first—attitude. Speculation as a basis for planning is frowned upon. The attitude is to commit one's self and one's activities in a clear line of procedure and not to speculate too much on potential activities or procedures that will change under certain circumstances or are left "open-ended" for possible change.

Too, there is a conservatism that is surprising unless one has had experience in industry or business. "Going off the deep end" on "wild schemes" is a condition to be guarded against and one that will surely

happen if too much change is attempted in too little time. One is reminded that the academic community has been criticized and, in fact, satirized and caricaturized for its own "moss-back" conservatism and devotion to tradition. To a member of the academic community who may have taken such criticism to heart and has led himself to believe that all the world outside of academia goes at a faster and more flexible pace, a visit to a plant with a project such as this should be quite instructive.

In industry, conservatism is combined with "locked-in" thinking at times, also. There are certain stock concepts, for example, that industry takes for granted and finds it difficult to relinquish. For example, professors teach "classes", classes meet at certain hours, and professors usually lecture from a "textbook", make "assignments" and "grade" papers. Most everybody who has attended school recognizes the stock situation just described. But the surprise for the project personnel comes in how difficult it has been in certain cases to break this kind of stereotype thinking, even when different and innovative alternatives were carefully explained. It had been expected that industry would welcome a change in the pattern of the old traditional methods of education—doubly so when one considers how so many in industry and business will privately admit of their doubts regarding education ability to meet their needs.

But it has been noticed that not only do industry personnel in certain cases subscribe to stock concepts, but they view suspiciously the innovative or the new that is being proposed. Not that this is an overt or actually expressed reaction, but it is there in the subtle but obvious discomfort and reluctance when the new procedures are discussed. But only

at first! The other side of coin is the quick, unhesitating willingness for the same group to accept an innovated concept once it has begun to prove itself even remotely. Here is where industry rises to meet expectations.

These observations on conservatism do not hold true specifically for any one plant or any one group but are, instead, a generalized condition existing in subtle but observable ways in many situations. In fact, an interesting point can be made in this respect as well—mainly, that industry contains a mixture of backgrounds that in itself is impressive, especially where key personnel are concerned , and even in the administrative areas where a certain kind of background might be assumed. Backgrounds range from the self-made, old war-horse type, self-taught, capable, and keen (but without the college degree) to the keenly alert, sophisticated, and impressive Harvard graduate executive and leader.

Nevertheless, it is the latter—the well educated executive—who is the easiest to explain to and to reach. And this has been fortunate since in most cases he is also the chief administrator or close to such a position.

In the plant around which this project has been built—Walker Parkersburg, a Division of Textron—the project has been extremely fortunate in the services and cooperation of the President of this plant, in this respect.

Harvard trained and experienced, he has been invaluable. There has been no reluctance for the innovative parts of the project nor for the unusual bases of its operation. Explanations of the projects aims and interests are no sooner given, they are understood. Quick emphatic action is taken where plant coordination is concerned, and to this one person alone much of the credit for the success of this project to date can be charged.

Yet such a person is more atypical than typical. Furthermore, this is not the kind of person that is likely to be filling the mid-management or foreman or supervisory positions where—in the long run—the project has to make its impact. So that by and large the conservatism and stereotyped thinking is a problem that must be continuously evaluated and worked on.

All this is by way of observation and by way of explanation of the ways in which a project such as this may fail. For even if plant and industry personnel are prone to stock concepts and stock thinking where such areas as college professors and college courses are concerned, they are still hard-driving, hard-bargaining, "show-me" individuals. So that it becomes very important that project personnel who are also professional educators quickly shed their own "stock" concepts of themselves. They must learn to speak directly and clearly and with what may be unaccustomed bluntness and willingness to commit themselves. They must inspect themselves for what may have become unconscious "scholarly remoteness" or, as it may be seen, professional vanity or ego. They must even be willing to change their vocabulary if it is too filled with educational jargon; and—finally, but most important—they must make a genuine attempt to form a person-to-person relationship.

Personnel in industry are ultra sensitive and quite sentimental about ritual friendship and the actions and "small-talk" that go with it. They are quick to recognize a rebuff on this level, and will retreat, sometime permanently, from the negotiations even as they may continue politely to participate in it.

For this reason, one cannot imagine a more different or unlikely twosome —than Industry and Education. And here, perhaps, is where much of the historic misunderstanding and poor relations stem between these two. Industry sees Education as impractical, vague, and at time vastly arrogant group, steeped in theory too much and who, therefore, cannot be brought to a single firm conclusion in any discussion. Education, in turn, sees a narrow-minded, narrowly motivated, materialistric individual who wants too many guarantees and who will not deal in subtlities of thought.

The aim of the project personnel and particularly of the project director has been to avoid such stereotype thinking from the beginning and to strip themselves of their own stereotype ideas for the opposite side. The result so far has been a genuine admiration for each other and a happy and productive working relationship.

Difference Between Plant Management Styles

Yet another interesting problem for the project has sprung from what has become evident in the differences in management styles and how the differences affect the project. One plant, it has been found, can differ quite significantly from another not only in the way line and staff relationships are followed but in the manner and way decisions are reached.

For example, at one plant the major decisions for all project activity have been reached by discussions and meetings between project personnel and the chief administrator of the plant and his top officials. In yet others, project personnel have dealt with a single person, usually the training officer or person in charge of personnel development. In the latter case, discussions have been held also, but then long periods have ensued during which the plant administration are supposedly being given time to discuss among themselves and to reach a decision that can be conveyed back to project personnel. The result is a tedious and time consuming, also it is a procedure that tends to stifle creative thinking and solutions.

In yet another area, the plants differ markedly—mainly, in the worker or student that will be released for the project and the course work studied. In one plant—the major plant with which the project has worked—the full aim of the project in terms of variety of courses and of work personnel involved has been achieved. In yet others, however, the decision on the same things--<u>which</u> courses and <u>who</u> attends them—has been decided by the administration of the plant; not only that but the personnel to attend the course have been hand-picked and "told" to attend.

This latter way of doing things was immediately felt by the project teaching personnel. A student told that he <u>must</u> attend certain educational sessions to improve himself is not as tractable or as positively motivated as one allowed to decide for himself. The instruction was affected for the first two or three weeks, under these circumstances until the more reluctant ones began to be attracted by the very fact that it was helping them and that the project was, indeed, an opportunity. The final reactions from these

students for evaluation purposes, therefore, do not show this dissatisfaction. But it was there at first, and it was noted. At the present time, in meetings held within the last week of this writing, it has been decided that such a practice is not finally productive. And this is the strength of industry. Its willingness to review and to change. Thus, in the second period it has been decided to offer a variety of course work and "encourage" personnel to attend but not "tell" them they must. The same with the course choices.

Problems like this have been noted and their eventual solution may come slow or fast. However, the fact remains that much will depend upon the management style and upon the ways a plant will discuss and make decisions—at least those decisions dealing with the project itself.

Still a third problem, stemming in the main also from management techniques, has to do with the "training officer" which the majority of industry now have. Here is a peripatetic, broad-based, active and hard working person whose job—as specific as it has been able to define it—is to concern himself with the professional improvement of personnel. This may vary from subjective material to straight data consumption. For example, any given industry may have a variety of areas in which special information must be transmitted or "taught". In fact, in this case, the resources for such study are enormous in industry. These operations are literally the "schools" within industry which have taken over the function of educating industrial personnel in the way that they (industry, i.e.) feel others can not do or <u>will not</u> do. The threat of the "proprietary school" Education speaks about exactly this area. The training officer as a working member of industry fits exactly into this framework.

In many ways, the entire concept of a training officer in industry is a commentary on industry's feelings and opinions regarding Education, especially postsecondary education, in this country. In effect, industry has taken over the responsibility and function of educational institutions for their own purposes in the creation of this office. Their public reason for doing so is that only this way can they train personnel in the "unique" ways or—as often put—"in the way we want things done". And a lot of discussion often follows to the effect that "we just happen to be a little bit different in some of the things we do from the others".

Yet investigation will show in most cases that there is little of this difference between plants as claimed, especially in some of the traditional areas of concern that they try to effect their training—courses and training dealing not only with interpersonal values and relationships but the whole host of skills which follow—writing, speaking, communicating, analyzing and evaluating and gathering data, and problem solving and decision making. The same with even the more mechanical skills such as blueprint drafting and reading, quality control, computer programming, keypunching, shop math, metal layout and the whole line of such teachable skills. They are not all that different as industry tries to claim. They are hard core subjects found in all colleges and universities.

The painful conclusion, therefore, that perhaps industry has lost faith in Education and has decided to go its own, may be more than speculation at this point. It may be a reality. In fact, as long back as the late '50's, industry was threatening to do just this very thing. U.S. Steel, General Motors, and others were specific in their disenchantment.

The project director of this project remembers very well meetings with industry in which statements to this effect were bluntly made. U.S. Steel at one such meeting bluntly told the teaching and administrative faculty of one large university in the industrial Northwest, in which the project director was present, the following: "We send a potential employee to your institution not because we ourselves cannot teach him to be an engineer and a good one—but because we feel that with you he learns not only engineering but the other skills he must have—speaking and writing and the rest."

Then followed ominously by the remark: "Unless this happens though, we would rather teach them ourselves and we will."

The remark has come to pass, and it is probably not too difficult to predict that, soon, even the engineering training as well as the whole of the liberal education will be done or attempted by industry.

And the point is that the basis for this possibility lies very much, one can see, in the concept of a "training officer". So far, industry has found itself short even so, with these attempts, especially when it comes to the actual teacher and the actual course content and/or syllabus. This, in turn, has caused an entire industry to spring up— I am speaking now of such operations as Advanced Systems, Incorporated, a firm that is now internationally engaged in producing nothing but education packages—mostly on television tape—with the best instructors and/or experts on the subject (by industry standards) and with step-by-step "coordinators's guides" for the training officer to follow.

It has not led to a quality performance, and for this Education can be

grateful. But neither has it entirely failed.

The reason for making all this clear at this point of the report is twofold—1) it is precisely this concept of industry's view of "teaching ourselves: which this project has directly challenged, and 2) it is the "training officer" which in many cases has been the project's major "diplomatic" problem.

The two points are clearly related. It is the training officer who is directing industry's effort to teach or train itself. The project, of course, is in a sensitive position, therefore.

In the case of one plant, it has been impossible to deal with anyone in the plant's administrative staff except the training officer. This is understandable from the training officer's view since it makes it possible for him to be fully acquainted and—in many ways—fully in control of the plant's part in the proposal. This gives him a feeling of involvement and contribution, and rightly so.

The problem which it poses, however, is clearly evident when compared to the central plant with which the project is working. Here, in the latter, the entire top management team and some mid-management as well are involved. Implementation of all activity is accomplished only after extensive discussion and "brainstorming" for alternatives and options have taken place. Without apologies, the result is a better quality program, the director believes. With a plant where only the training officer represents the industry involved, there is less opportunity for a real trading of ideas.

The officer is by necessity guarded and cautious; he finds it necessary to double check frequently with his supervisors (sometimes over an extended period of time); and he is more set in his opinions—probably as a consequence of his own "middle-man" position—and even more difficult to persuade. In fact, it is often the case where the entire uniqueness of the proposal has to be carefully, cautiously explained since it is obvious that these plant representatives are far more conservative in their ideas of instruction than the project personnel.

At this point, the project has begun to gain more trust and more credibility with the training officers it has had to deal with. Whether the trust will lead to as full cooperation and interchange as has occurred with the main plant in the proposal (Walker Parkersburg) where direct contact has been achieved with top management is another question entirely. But that cannot be answered at present.

Professional and Interpersonal Relationships

Yet another area of interest but of difficulty is in the area of interpersonal relationships where professional line and staff relationships are also involved. Thus, it was found that if an employee in a supervisory capacity is enrolled in the project, that it is important that those subordinate to him or under his supervision are not also present at the same time. Comparison of work being done, treatment of one over the other by the instructor, even the very subject being studied—all these became fraught with potential discord or discontent.

Still another point in this area has developed. It has become obvious

that the instructors as well as the counselor in the project are being used as a means of making a point with the administration. In this respect, therefore, it has become clear that some of the comments, some of the reactions, are calculated to reach administrative ears. But at the same time, a problem has developed in trying to ascertain which are and which are not, because obviously some confidences are quite sensitive in content and expression. The whole problem is as much an expression of the success the project personnel had experienced in gaining student confidence and trust, as it is a question of being used as a channel of communication.

It was finally decided to broach the question to the chief administrator of the Walker Parkersburg plant. Predictably, he was fully cooperative and interested. It was his view that he would let the project people decide what to pass on what not to pass on.

And they have. And it has been successful. In certain cases, direct contact has been made with the student's supervisor and "suggestions" made a part of written assignments. Changes have been proposed in procedure and—to the delight of everyone concered—accepted and implemented. In one case, a prize was even won for the best suggestion of the month—all as part of the student's written work. It is a tribute not only to the instructors who have handled it so well, but to the plant and its administrative flexibility.

So far, these are all major problems which have emerged to a point where a solution seems possible before the project's end. But there are other problems which pose difficulties which as yet have not been resolved.

Some Problems Yet to be Resolved

For example, it is most difficult to design courses for industry's needs when these needs strain the existing philosophy which guides Education. At present, there are many taboos one has to be careful in handling: Formal testing of the traditional kind—mainly, essay and objective; use of formal blocks of time such as quarters, semesters, even formal blocks of credit and the demands that most institutions make of those seeking accredited study; the traditional set syllabi, even the traditional preoccupation with slavish adherence to pre-set syllabi—all these set ways of doing things become brittle and unwieldly instruments with which to deal with industry's desire for swift planning and its short span of interest.

Ponderous machinery involving computer records, traditional forms in registration and procedures which seem so logical to on-campus personnel working in the mainstream of activity, become obstacles and causes for replanning. Industrial personnel have enormous respect for channels of procedure and set ways of doing things; they look upon educational institutions, especially postsecondary institutions, as models to emulate in this respect. Nevertheless, they are somewhat surprised and disappointed to find that colleges in general are as form-ridden and difficult to move as their own organizations. It is not a fair appraisal on their part, but they often make such an appraisal.

The problem which all this leads to is the problem of developing a program and/or series of courses swiftly and effectively. Such work should start from first indication of "need" expressed by the plant, to a swift and final implementation of instruction and instructors and the full

satisfaction of the need expressed. At this point, the "turn-around-time" the project has taken for such production is entirely too long. And it is also fair to say that a majority of the problem lies in the ponderousness of the academic side of the project—not in individuals and personalities or specific areas (everyone has been the model of cooperation in this college) but in the very fabric and mechanism of how a college—any college—operates.

Still also pending solution is the question whether or not the actual claims or convictions upon which this project is based can actually be justified. It has not so emerged that this crucial question can yet be answered. There are the problems involving the rigidity of philosophies on both sides. Can such rigidity and differences of philosophies really be bridged, in the final analysis. Then there is the serious problem, as it has been developing so far, of the difficulty of inserting "training" and "education" squarely within the context of a plant's daily operation. Can it be done, successfully in the long run? The workers themselves have found that their fatigue is much more noticeable than at an actual on-campus session. Also their concentration on their specific jobs is so demanding they find it almost impossible and certainly frustrating to break it in the very midst of it (as in the case of those taking students during their regular work schedule) or to put it aside so quickly after the shift ends. In fact, this last problem has only begun to make itself felt, due mainly to the success of the instructional staff to keep their instruction interesting and appealing. But like the proverbial tip of the iceberg, its force is beginning to surface. What its final impact will, is yet unclear.

All this means, of course, that the project has made an important step in launching the first major period of study—with all its problems of personalities, philosophies, and traditional conservatism. And it has its task well cut out for the future.

- end of this section -

BIOGRAPHICAL SKETCH

of

Key Personnel for Proposed Project (FIPSE)
Parkersburg Community College, FY 1977

Name: Raul Reyes

Title: Director of Instructional Design and Development

Place of Birth: El Paso, Texas U.S.A.

Present Nationality: U. S. Citizen

Social Security No: 516-20-6488

Relationship to Proposed Program: Director of Instructional Design and Development at present

EDUCATION

Organization and Location	Degree	Year	Discipline
University of Arkansas, Fayetteville, Arkansas	B.A.	1949	Speech & Drama
Yale University, New Haven, Conn.	Post. Graduate	1949-50	Drama
University of Arkansas, Fayetteville, Arkansas	M.A.	1952	English

Honors: Phi Rho Pi, Phi Beta Kappa

Major Research or Professional Interest: (See attached sheets)

List Recent Relevant Publications: (See attached sheets)

Professional and/or Research Experience:

1952-55 - Inst. English - Cottey College, Nevada, Missouri

1955-60 - Inst. Speech - Drama, Ohio University, Athens, Ohio

1960-71 - Chairman, Department of Communications
Otero Junior College, La Junta, Colorado

1970-71 - Director of Freshman English, Troy State U., Troy, Alabama

1971-Present - Assistant Professor, English and Director of Instructional Design and Development, Parkersburg Community College
Parkersburg, West Virginia

List of Publications and Achievements

Articles and Papers:

"Christianity and Education"
Paper read to the Episcopal College Conference
Proctor Farms, (Ohio, 1957).

"Expansion: A Paradox in Principle"
The Educational Forum, XXI, No. 4, Part I (May, 1957), 477-482.

"Otero Experiments with English Composition"
Junior College Journal, XXXVIII (September, 1967), 34-36.

"(PARE) Problem-Solving and Recognition Efficiency: A New Approach to Problem-Solving"
Paper presented to the Colorado-Wyoming Academy of Science, Communication Section, (April, 1967).

"Toward a Philosophical Interpretation of the Problem-Solution Dyad"
Paper presented to the Colorado-Wyoming Academy of Science, Communication Section, (April, 1968).

Books:

Seven Steps to Composition
Textbook, accepted for publication by Scott, Foresman for 1970 College Division,
Glenview, Illinois

The Day of the Reaper
Novel, accepted for publication by Harris-Wolfe, Publishers, Jacksonville, Illinois, (yet to be released).

Other:

Mystic's Apostle
Three-act play, written, produced, and directed, Ohio University Experimental Theatre, (Spring, 1958).

Otero Junior College Institutional Self-Study 1965-66
Editor of Report of the Institutional Self-Study of Otero Junior College for North Central Association of Colleges and Secondary Schools Accreditation, (April, 1966).

"Some Changes in the Language"
Quarterly Journal of Speech, (Fall, 1957)

A short biographical sketch: Raul Reyes (continued)

Membership in Professional Organizations:

Have been past vice-president of Phi Rho Pi, National Honorary Forensic Society, past president of Rocky Mountain District of Oratorical Association of America; present Rocky Mountain representative of Junior colleges in Western Speech, regional subsidiary of Speech Association of America; member of Conference on College Composition and Communication and of National Council of Teachers of English; member of Phi Beta Kappa, National Honorary Scholastic Fraternity; member of International Society of General Semantics; member and chairman of Communications Section of Colorado-Wyoming Academy of Science; member of the Steering Committee of the Southwest Regional Conference of English in the Two-Year College, regional affiliate of the National Council of Teachers of English.

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